

BBS — PC!

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Micro-Systems Technical Support
12798 W. Forest Hills Blvd.
Suite 202
West Palm Beach, Florida 33414

(305) 790-0772

Technicians are available to answer your questions from 9 a.m. until 5 p.m., Monday through Friday, Eastern Standard Time.

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- o Chapter 9, **BBS-PC! In a Multi-User Environment**, covers the multi-user capabilities available with **BBS-PC!**.
- o Chapter 10, **BBS-PC! Utilities**, examines and gives examples of the various utilities available for use with **BBS-PC!**.
- o Chapter 11, **The Life of a Sysop**, covers the daily, weekly and monthly maintenance that most Sysops should practice on a regular basis.
- o Chapter 12, **Miscellaneous Information**, examines common problems beginning Sysops may experience, disk errors and possible solutions.

After becoming familiar with the **BBS-PC!** program, this manual will continue to be of value as a quick reference guide. To find information on different functions and commands, refer to the Table of Contents or Index and turn to the page containing the information you want to review.

If you need additional information about **BBS-PC!**, contact Micro-Systems Technical Support advisors who are always happy to answer your questions.

The next step is to make a working copy of your **BBS-PC!** master disk.

PREFACE WELCOME TO BBS-PC!

Congratulations on purchasing **BBS-PC!**, Micro-Systems Software's electronic bulletin board software for the IBM and compatibles or a Commodore Amiga Personal Computer.

BBS-PC! is an electronic bulletin board and file transfer system written for the IBM-PC and compatibles, and the Commodore Amiga 500, 1000 and 2000.

Traditionally, bulletin boards are cork boards filled with little notes, each attached with thumbtacks. People walking by can browse the board for general notices, upcoming activities, meetings, things for sale, etc.

BBS-PC! expands this concept to support private mail between users, features areas for special interest groups (SIG's) and file transfers for the exchange of articles or public domain programs.

The Sysop (System Operator) who runs the BBS decides the type of system which is operated, who may join, what hours the system is available and so forth.

The type of BBS varies greatly. Some specialize in interests for one particular type of computer, or several. Others are dedicated to computer games, programming languages and so forth. Many professionals dedicate BBS's to promote the sharing of information with their colleagues. The success of any system depends on the "niche" you intend to fill and whether or not people find it interesting and valuable.

WHY BBS-PC! IS UNIQUE

A BBS is one program where customization is highly desirable. The last thing you want is to have your BBS look and act like thousands of others. Unfortunately, this is all but impossible

with conventional BBS programs.

BBS-PC! offers the most sophisticated features of any BBS available, with the added ability to customize the system to suit your purposes. 16 message and file transfer sections are supported with 256 separate file directories available for each of the sections. This allows the design of a system with totally separate message bases, one huge system open to all or any combination of the above. It's up to you.

With the **BBSMENU** menu compiler, you design the type of system preferred. Through the creation of menus, you assign any of 60 available **BBS-PC!** functions to each menu item. In addition, you can specify who may activate a menu item, the extent to which the function is performed and whether or not it is even seen by a particular user.

BBS-PC! is not limited to home use. Since **BBS-PC!** supports two COM ports (though each node answers only one COM port at a time), businesses can utilize **BBS-PC!** in a multi-user environment to allow many departments the ability to share the latest information on a project or changes in company policy.

The range of a terminal can be extended greatly over a dialing area through the ability to call a **BBS-PC!** configured to support two COM ports. The user calls in on one COM port and then calls out to another **BBS-PC!** (through the other COM port and the Terminal module). This would normally be a long-distance call, but now is not, since the first **BBS-PC!** is local to both calling areas.

You can also have a **BBS-PC!** cover a greater calling range by placing it in a location common to both calling areas and having it configured to poll two COM ports.

File and data transfer is a task **BBS-PC!** is well adapted to, and the file catalog provides an interface to DOS that allows easy searching and uploading/downloading that your users will find

second to none.

In addition, **BBS-PC!** supports 7 file transfer protocols, which are:

ASCII: sends binary files in ASCII-Hex and allows both line by line or block transfers with XON/XOFF pacing.

XMODEM: (Ward Christensen protocol) - a common standard in BBS file transfer, standard XMODEM is supported as well as XMODEM-CRC with cyclic redundancy check for 99.9% error-free transfers.

Kermit: the file transfer protocol used with most mainframes.

Ymodem: a protocol much like XMODEM, except each packet is 1024 bytes long.

Ymodem-Batch: the same protocol as Ymodem, only the filename is automatically sent during transfer.

Zmodem: Currently the fastest file transfer protocol found in the public domain. Continuous data-streaming permits file transfers in excess of rated modem speeds.

Baud rates of 300, 600, 1200, 2400, 4800 and 9600 are supported, with automatic detection of either 7 data bit, even parity and 1 stop bit (7E1) or 8 data bit, no parity and 1 stop (8N1) protocol.

Versatility is **BBS-PC!**'s middle name. 10 terminal definitions are supported, each automatically configuring the user's screen display. Each user may make changes in their own record, should the pre-defined codes not meet their needs.

This allows a Commodore C-64 user with a terminal selection of 40 columns wide and 20 rows long to see all unformatted text files and messages automatically re-formatted for his screen display. If the user changes his screen width to 80 columns, then all

unformatted text files and messages are displayed using the new defaults.

BBS-PC! features an optional call-back security system that, if selected in the user's record, accepts a call, checks the user's record for a phone number and informs the user that they will be called back at the number listed in their record. The call is then terminated and **BBS-PC!** dials the user's phone number. When connection is made, **BBS-PC!** prompts for the password again. If it matches, the call is continued, otherwise the system disconnects. This security option can be enabled for an individual user (only local calls, unless you're a rich masochist!) or used in a business environment where security is paramount.

IBM REQUIREMENTS

BBS-PC! requires an IBM/PC/XT/AT/jr or compatible with a minimum of 256k RAM, two floppy drives (one can be used, but is not recommended), or a hard drive, which is always recommended for any application where optimal speed and disk space is desired.

A command driven auto-answer modem (Hayes or Hayes-compatible is recommended), serial cable and serial port (COM port or asynchronous communications adapter) completes the requirements.

AMIGA REQUIREMENTS

BBS-PC! requires a Commodore-Amiga 500, 1000 or 2000 with a minimum of 512k RAM, one floppy drive (two are recommended), or a hard drive, which is always recommended for any application where optimal speed and disk space is desired.

A command driven auto-answer modem (Hayes or Hayes-compatible is recommended), serial cable and serial port (COM port or asynchronous communications adapter) completes the requirements.

This program is not for the faint at heart. Basic BBS terms and

operations are assumed. If you have not run a BBS before, it will help immensely to call a few local systems and become familiar with the way they operate.

HOW TO USE THIS MANUAL

This manual will help you learn to use the **BBS-PC!** program. It is divided into 12 chapters.

- o Chapter 1, **BBS-PC! Installation**, covers how to make copies of your master diskette(s).
- o Chapter 2, **The BBS-PC! Datafile Initialization**, explains how to install **BBS-PC!** for either a floppy drive or hard drive based system.
- o Chapter 3, **Local Menu Functions**, explains all functions and displays of the Local Menu.
- o Chapter 4, **Modem Installation**, discusses basic requirements for a modem, how to install your modem and lists modem settings for many popular modems.
- o Chapter 5, **System Defaults and Text Files**, covers important system defaults prior to accepting your first caller and the text files that will be displayed to your callers.
- o Chapter 6, **BBS-PC! Overview**, covers what your callers will see, briefly discusses the use of the message system and file transfer system. Also covered are the modules accessible from the Local Menu and Sysop function keys.
- o Chapter 7, **BBS-PC! Functions**, examines all the functions available within **BBS-PC!**.
- o Chapter 8, **Menu Customization**, covers how to create your own menus to customize **BBS-PC!**.

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CHAPTER 1 BBS-PC! INSTALLATION FOR THE IBM & COMPATIBLES

Before you install **BBS-PC!**, you need to make backups of your Master Disks to prevent anything from happening to them. **BBS-PC!** is not copy-protected. At Micro-Systems Software, Inc., we feel quality software at a reasonable price is the best way to encourage people to purchase the program instead of "sharing" it. Giving away commercial software is stealing and may force us to raise our prices. Because of the lack of copy protection, you can make a duplicate copy of the master diskette.

In addition to copying the master disks, you will make some blank data diskettes where the actual programs and datafiles reside. The following sections separate floppy drive and hard drive installations.

FLOPPY DRIVE BACKUPS

Place your DOS diskette with DISKCOPY.COM in drive A type:

DISKCOPY A: B:

and press Return. You are instructed to place the source diskette in drive A and the destination diskette in drive B. Remove the DOS diskette, insert the **BBS-PC!** program diskette in A and a blank diskette in drive B and press Return.

DISKCOPY now makes a backup of the program diskette. When this is finished, remove the **BBS-PC!** program diskette and put it aside where it cannot be damaged. Remove the diskette from drive B and label it **BBS-PC! Program Disk**. You will use this disk as your new "master copy."

At the end of the copy procedure you are prompted to make another disk copy. Answer "Yes" and place your utility master diskette in drive A and the blank disk in drive B. Press Return to start

copying.

Once your utility diskette is copied, label it **BBS-PC! Utility Disk** and place both masters in a safe place.

INSTALLING BBS-PC! ON FLOPPY DRIVES

Now you'll format a couple of blank diskettes and copy the necessary files for your working copy of **BBS-PC!**.

Begin by placing a DOS diskette in drive A that contains **FORMAT.COM** and a blank diskette in drive B. Then type:

FORMAT B: /S

and press Return. The program prompts you to place a disk in drive B and to press Return to start formatting. Please press Return. The /S switch writes a copy of your DOS to the newly formatted disk. This will be your boot disk containing the **BBS-PC!** programs. When the formatting is complete, answer *No* to format another diskette.

Now remove the diskette from drive B and place another blank diskette in the same drive. Repeat the above format procedure, this time without the /S switch. This is your datafile diskette, which does not require an operating system.

When the format is complete, remove the DOS diskette from drive A and insert the first disk you formatted (remember, the one containing a copy of DOS). Remove the blank disk from drive B and insert the **BBS-PC!** program disk created earlier.

From the DOS prompt in drive A, type:

COPY B:*.*

and press Return. A list of names appear on the screen as the

files are copied from the B drive to the A drive.

Once the copying is finished you need to erase one of the files. Your program disk comes complete with a regular BBS.EXE file and a BBS2K.EXE for Tandy 2000's. If you don't have a Tandy 2000, delete the BBS2K.EXE file. Type:

DEL BBS2K.EXE

and press Return. If you are installing this on a Tandy 2000 then delete **BBS-PC!.EXE**.

Now you will copy three of the programs from the utilities diskette which you will use the most often. Remove the program diskette from drive B and replace it with the utilities diskette made earlier. From the drive A type:

COPY B:BBSINIT.COM

and press Return. Then type:

COPY B:BBSFIX.COM

and press Return. When the file is copied type:

COPY B:BBSMENU.COM

and press Return. Now reboot the machine by pressing the Ctrl, Alt and Del keys simultaneously.

Make sure the CONFIG.SYS file is on drive A and it contains the statement *FILES = 20*. To verify this type the following at the DOS prompt:

TYPE CONFIG.SYS

and press Return. The statement *FILES = 20* should appear on your screen.

BBS-PC! requires that many file handles to run properly. Most installation problems arise from the fact that this file is missing. Please confirm its presence before going any further. Any attempt to run **BBS-PC!** without this file will result in failure!

HARD DISK BACKUPS

A hard disk does not require a backup copy of the master disks since the files are copied directly to the hard drive. However, a sub-directory is needed to segregate the **BBS-PC!** files from the rest of your hard drive.

Boot up your computer and log onto the hard disk. Usually this is drive C. Your AUTOEXEC.BAT file (if one exists) usually places you in another sub-directory other than the root directory. To log into the root directory, type:

CD

and press Return. Optionally you can enter:

PROMPT \$P\$G

and press Return. The above DOS command allows you to identify the current sub-directory by displaying:

C:\BBS-PC! >

instead of the normal DOS prompt:

C >

First, to create a sub-directory for **BBS-PC!**, type:

MD BBS-PC!

and then press Return.

If you receive an error that the system is unable to create the sub-directory, then it either exists or was entered improperly. If you get a *bad command or file name* error, you entered the command improperly. When the command is entered and you see the DOS prompt, enter the **BBS-PC!** sub-directory. Type:

CD\BBS-PC!

and press Return. Now create a **BBS-PC!** sub-directory for your file uploads and downloads. The reason for this is made clear in the next chapter when the **BBS-PC!** datafiles are initialized. At this point, enter:

MD UPDN

and press Return. If you receive an error that the system is unable to create the sub-directory, then it either exists or was not entered properly. If you see a *bad command or file name* error, you typed the command improperly.

Now place your **BBS-PC!** program disk in drive A and type:

DIR A:

and press Return. A list of filenames appear on the screen. If they don't, the wrong disk is in drive A.

Now copy the files over to the hard drive. Enter:

COPY A:*.*

and press Return. A list of the **BBS-PC!** files appear as they are copied into the sub-directory. When completed, replace the program diskette in drive A with the utilities diskette. Press the F3 key to display the last DOS command and press Return to start copying the files. If your F3 key doesn't work properly,

repeat the above copy procedure.

INSTALLING BBS-PC! FOR A HARD DRIVE

First you need to copy the CONFIG.SYS file from the **BBS-PC!** sub-directory into the root directory. This file contains the statement *FILES = 20*, which allocates the additional file handles needed for **BBS-PC!** to run properly. If you have such a file installed in your root directory, modify it with the above statement; otherwise type:

CD

and press Return to enter root directory. Once in the root directory, type:

COPY C:\BBS-PC!\CONFIG.SYS

and press Return. This copies the CONFIG.SYS file to the root directory where DOS processes it on a cold boot or system reset. To verify the file was copied properly, type:

TYPE CONFIG.SYS

and press Return. The statement *FILES = 20* should appear on your screen.

If this file isn't present in the root directory when booting, any attempt to run **BBS-PC!** will result in failure! Now to reboot the machine, press the Ctrl, Alt and Del keys simultaneously. When the system displays a normal DOS prompt, log back into the **BBS-PC!** sub-directory and continue.

This concludes the formatting and disk copying procedure. The following chapter covers **BBS-PC!** datafile initialization.

BBS-PC! INSTALLATION FOR THE AMIGA FLOPPY DRIVE BACKUPS

The **BBS-PC!** disk contains a copy of Workbench 1.2. This means that you can use this disk to boot your Amiga when it prompts for the Workbench diskette. **BBS-PC!** is not compatible with KickStart and Workbench version 1.0. To make a backup diskette, insert your **BBS-PC!** master disk after re-booting your machine by pressing both Amiga keys and the Ctrl key simultaneously.

Please make sure the copy of KickStart you put into the machine when you first power it up is version 1.2. If you own a Commodore Amiga 500 or 2000 a KickStart disk is not needed.

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DUPLICATING BBS-PC! WITH ONE DRIVE

BBS-PC! does not default to a Workbench window. Boot your Amiga with the **BBS-PC!** master diskette. When the CLI prompt `I >` appears, enter:

1 > DISKCOPY DF0: TO DF0:

and press Return.

After a few moments of disk access, the following message is displayed:

**Place SOURCE disk (from DISK) in drive DF0:
Press RETURN to continue**

If your **BBS-PC!** master disk is not already in the internal drive of your Amiga, please insert it and press Return.

After your Amiga reads a number of tracks from your master disk, the following message displays:

**Place DESTINATION disk (to DISK) in drive DF0:
Press RETURN to continue**

At this point, remove your **BBS-PC!** master disk and insert the disk you wish **BBS-PC!** to be copied to. The destination disk can be formatted or unformatted, it does not matter. When the destination disk is inserted, press Return.

This process of switching between your SOURCE (**BBS-PC!** master) disk and the DESTINATION (**BBS-PC!** working copy) disk continues for several passes. When the diskcopy process completes, the following message appears:

Diskcopy finished

You should make two or three duplicate copies to safeguard against losing all your diskettes containing **BBS-PC!**.

Once your diskcopies have completed, re-boot your Amiga with your new working copy of **BBS-PC!** and place your master disk away where it will be safe.

DUPLICATING BBS-PC! WITH TWO DRIVES

BBS-PC! does not default to a Workbench window. Boot your Amiga with the **BBS-PC!** master diskette. When you see the CLI prompt `1 >` enter:

1 > DISKCOPY DF0: TO DF1:

and press Return.

After a few moments of disk access, the following message appears:

**Place SOURCE disk (from DISK) in drive DF0:
Place DESTINATION disk (to DISK) in drive DF1:
Press RETURN to continue**

If your **BBS-PC!** master disk is not in the internal drive of your Amiga, please insert it and place the disk you wish **BBS-PC!** copied to in your external drive and press Return.

When the diskcopy process completes, the following message appears:

Diskcopy finished

You should make two or three duplicate copies to safeguard against losing all of your diskettes containing **BBS-PC!**.

Once your diskcopies are finished, re-boot your Amiga with your new working copy of **BBS-PC!** and place your master disk away where it will be safe.

HARD DRIVE BACKUPS

A hard disk does not require a backup copy of the master disk since the files are copied directly to the hard drive. However, a sub-directory is needed to segregate the **BBS-PC!** files from the rest of your hard drive.

Boot up your Amiga. First open a CLI window if one isn't present. The CLI icon is found in your System drawer. You need and log onto the hard disk. Usually this is drive DH0:. Your Startup-Sequence file may place you in another sub-directory other than the root directory. To log into the root directory, from CLI type:

CD DH0:

and press Return. If your hard drive device name is something other than *DH0*:, simply substitute the proper device name.

The next step is to create a sub-directory (drawer) for the **BBS-PC!** files. At the CLI prompt enter:

MAKEDIR BBS-PC!

and press Return. If you receive an error that the system is unable to create the sub-directory, then it either already exists or the command wasn't entered properly.

To log into the **BBS-PC!** sub-directory, type:

CD :BBS-PC!

and press Return. Now create a **BBS-PC!** sub-directory for your file uploads and downloads. The reason for this is made clear in the next chapter when the **BBS-PC!** datafiles are initialized. At this point, enter:

MAKEDIR UPDN

and press Return. If you receive an error that the system is unable to create the sub-directory, then it either exists or was not entered properly.

The last step is to copy the files from your **BBS-PC!** master disk into the sub-directory on your hard drive. Enter:

COPY ALL BBS-PC!:BBS-PC! TO DH0:BBS-PC!

and press Return. As each file is copied, its name appears on the screen.

The last and final step is to add a command to your

Startup-Sequence or type it from CLI before loading **BBS-PC!** into memory. This command is:

STACK 15000

and is necessary for proper operation of **BBS-PC!**.

This concludes the disk copying procedure. The following chapter covers **BBS-PC!** datafile initialization.

CHAPTER 2 BBS-PC! DATAFILE INITIALIZATION FOR THE IBM & COMPATIBLES

The **BBS-PC!** utility, **BBSINIT**, creates your **BBS-PC!** datafiles. In addition, it also generates a **BBS.P** (parameter) file that allows **BBS-PC!** to locate its datafiles. **BBS-PC!** refers to the **BBS.P** file when booting and it must be located in the same directory as **BBS-PC!.EXE**. If **BBS-PC!** refuses to boot up, the problem is usually due to running **BBSINIT** improperly.

At this time please double-check the existence of your **CONFIG.SYS** file in the root directory where **BBS-PC!** is located. Type the following:

CD

and press Return to log into the root directory. From there, type:

TYPE CONFIG.SYS

and press Return. If the statement *FILES = 20* does not appear on the screen, go back to the last chapter and follow the instructions regarding the **CONFIG.SYS** file. Without this file, **BBSINIT** and **BBS-PC!** will not perform properly.

If the statement does appear on the screen, make sure you have booted up your computer with the proper disk in drive A. Otherwise DOS would not have processed the statement and could not have allocated the additional file handles that **BBS-PC!** and the utilities need.

Now you're going to perform what should be a flawless installation. **Follow these step-by-step instructions exactly.** After the installation, an explanation is provided as to what you did and how to do things differently.

FLOPPY DRIVE INITIALIZATION

Type the following:

BBSINIT

and press Return. The following information is displayed:

BBSINIT - BBS-PC! Initialization - 4.20

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Generate parameter file?

Enter *Y* and press Return.

The following 4 prompts pertain to where your datafiles will be located.

Drive/path for message files:

Enter *B:* and press Return. The next prompt is:

Drive/path for user files:

Press Return to use the default drive/path. The next prompt is:

Drive/path for U/D indexes:

Enter *B:* and press Return. The last prompt is:

Drive/path for log files:

Press Return to use the default drive/path. The next question that appears is:

Generate main BBS files?

Enter *Y* and press Return. Your response causes **BBS-PC!** to create brand new datafiles. If this is the first time you've run **BBSINIT**, the next question is:

Enter up to 16 paths for U/D files

Drive/path #1:

enter *B:* and press Return. This is the drive where your uploads are placed. The next prompt appears:

Drive/path #2:

Press Return. Up to 16 paths may be entered. For now, one is enough. The next and last question is:

Initialize BBS node file?

If this question does not appear, then your CONFIG.SYS file is:

Missing

In the wrong sub-directory

Does not contain the statement *FILES = 20*

You didn't re-boot the computer after copying CONFIG.SYS to the root directory.

You will have to re-read the previous chapter concerning the CONFIG.SYS file before you can go any further.

If the question does appear, then proceed. At the prompt enter *Y* and press Return. The next prompt appears:

Which node (1-99)?

enter *1* and press Return.

BBSINIT now creates all the proper datafiles and initializes the system with a Sysop user record and other system defaults.

If you see the error message: *%% Can't create ISAM files 'i' %*, then your CONFIG.SYS file is:

Missing

In the wrong sub-directory

Does not contain the statement *FILES = 20*

You didn't re-boot the computer after copying CONFIG.SYS to the root directory.

HARD DRIVE INITIALIZATION

To log into the **BBS-PC!** sub-directory type:

CD\BBS-PC!

and press Return. Now enter:

BBSINIT

and press Return. The following is displayed:

BBSINIT - BBS-PC! Initialization - 4.20

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Generate parameter file?

Press *Y* and then Return.

The following 4 prompts deal with the location of your datafiles.

Drive/path for message files:

Press Return key to select the current sub-directory. The next prompt appears:

Drive/path for user files:

Press Return again. The next prompt appears:

Drive/path for U/D indexes:

Press Return. The last prompt appears:

Drive/path for log files:

Press Return one more time.

The next question asked is:

Generate main BBS files?

Enter *Y* and press Return. The following appears:

Enter up to 16 paths for U/D files

Drive/path #1:

enter *C:\BBS-PC\UPDM* and press Return. At the next prompt:

Drive/path #2:

press Return.

The next and last question is:

Initialize BBS node file?

If this question does not appear, your CONFIG.SYS file is:

Missing

In the wrong sub-directory

Does not contain the statement *FILES = 20*

You didn't re-boot the computer after copying CONFIG.SYS to the root directory.

You will have to re-read the previous chapter concerning the CONFIG.SYS file before you can go any further.

If the question does appear, respond with Y and press Return. The following prompt displays:

Which node (1-99)?

enter 1 and press Return.

BBSINIT now creates all the proper datafiles and initialize the system with a Sysop user record and other system defaults.

If you see the error message: *%% Can't create ISAM files %%*, then the CONFIG.SYS file is:

Missing

In the wrong sub-directory

Does not contain the statement *FILES = 20*

You didn't re-boot the computer after copying CONFIG.SYS to the root directory.

EXPLANATION OF TERMS

Generate parameter file?

This question deals with the location of the **BBS-PC!** datafiles. If the files already exist and you wish to move them to a different location, for reasons of disk re-organization or simply personal preference, answer with a Y. Four drive/path prompts will appear, one for each set of datafiles.

The drive path can be any legal DOS pathname, with only two exceptions:

One: The pathname must end in a trailing backslash \, or a : (colon) if you are using a drive designator and not entering a sub-directory path.

For instance: *B:* or *B:\BBS-PC\MSGs* are both acceptable. The second entry is used if you wish to segregate your **BBS-PC!** datafiles by file type.

Two: If specifying a sub-directory pathname, make sure that you have created the sub-directory with the DOS **MD** *mkdir* command. If the sub-directory does not exist, **BBS-PC!** reports that it can't locate the ISAM files and will refuse to boot.

If you change the drive/path names for the datafiles, make sure you copy them to their new location, or **BBS-PC!** will fail to boot.

Generate main BBS files?

This question deals with whether you wish **BBS-PC!** to initialize brand new datafiles. If you answer with a *Y*, **BBS-PC!** creates new datafiles, erasing whatever was there previously. If you are configuring **BBS-PC!** to look elsewhere for the datafiles, then answer *N* to this question.

Whenever you generate new BBS files you are prompted for up to 16 upload/download pathnames. These drive/paths are searched sequentially by **BBS-PC!** when a user requests a download. The first pathname entered contains all user uploads.

The same restrictions which apply to the four datafile drive/path name prompts, apply to the upload/download prompts. That is: the sub-directories must exist and the pathnames must be terminated in a \ (backslash).

Once you decide which sub-directories you will use for downloads, the **BBS.P** file can be updated later with new upload/download pathnames. To do this, enter the following at the DOS prompt:

BBSINIT -U

and press Return. The current drive/pathnames are displayed on the screen and the following prompt appears:

Drive/path #1:

Remember, the first drive/pathname entered contains all new uploads until you run **BBSINIT -U** again at a later date.

Generate BBS node file?

The **NODExx.DAT** node file contains the information stored in the Modem, Node Defaults and pseudo filename counter. These values are discussed later in the manual. **BBS-PC!** automatically creates default values that initializes the system for a Hayes 1200 Smartmodem.

The creation of a node file means any information that has been changed in these sections automatically return to the default values. Therefore, it is recommended that you generate a BBS node file only once to prevent you from having to re-enter your preferred Modem or Node Defaults.

Normally, you only generate node number 1. For multi-user systems on a Local Area Network, you will run **BBSINIT** once for each node, making sure the datafile and drive/path locations are identical for each node. See Chapter 9, "*Networking with BBS-PC!*."

The last file created by **BBSINIT** is named **CFGINFO.DAT**. This file contains the 16 drive/path names for your upload/downloads. While **BBSINIT** permits as many as 16 drive/path names, you only have to enter as many drive/path names as will be needed by your system. **BBS-PC!** does not require all 16 prompts to be filled. Also included are the settings under System Defaults, the Terminal Definitions and Section Names. Again, this is covered later in the manual.

Your **BBS-PC!** datafiles are now initialized. The next chapter

covers the Local Menu functions and the statistics displayed on the main screen.

BBS-PC! DATAFILE INITIALIZATION FOR THE AMIGA

The **BBS-PC!** utility, **BBSINIT**, creates your **BBS-PC!** datafiles. In addition, it also generates a **BBS.P** (parameter) file that allows **BBS-PC!** to locate its datafiles. **BBS-PC!** refers to the **BBS.P** file when booting up and it must be located in the same directory as **BBS-PC!**. If **BBS-PC!** refuses to boot, the problem is usually due to running **BBSINIT** improperly.

Now you're going to perform what should be a flawless installation. **Follow these step-by-step instructions exactly.** After the installation, an explanation is provided as to what you did and how you may wish to do things differently.

FLOPPY DRIVE INITIALIZATION

Type the following:

BBSINIT

and press Return. This information is displayed:

BBSINIT - BBS-PC! Initialization - 4.20

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Generate parameter file?

Press Y and then Return.

The following 4 prompts pertain to where your datafiles will be located.

Drive/path for message files:

Enter *DF1:* and press Return for the default drive/path. The next prompt is:

Drive/path for user files:

Press Return again. The next prompt is:

Drive/path for U/D indexes:

Enter *DF1:* and press Return. The last prompt is:

Drive/path for log files:

Press Return. The next question asked is:

Generate main BBS files?

Enter *Y* and press Return. Your response causes **BBS-PC!** to create brand new datafiles. If this is the first time you've run **BBSINIT**, the next question is:

Enter up to 16 paths for U/D files

Drive/path #1:

Enter *DF1:* and press Return. This is the drive where all your uploads are placed. While as many as 16 drive/paths may be entered, one is enough for now. The next prompt appears:

Drive/path #2:

Press Return. The next and last question is:

Initialize BBS node file?

Enter *Y* and press Return. The following prompt appears:

Which node (1-99)?

Enter *I* and press Return.

BBSINIT now creates all the proper datafiles and initializes the system with a Sysop user record and other system defaults.

If you see the error message: *%% Can't create ISAM files %%*, then you either didn't answer the above prompts correctly or you entered a sub-directory or drive name which does not exist. You will need to repeat the above procedure, double-checking your entries.

HARD DRIVE INITIALIZATION

To log into the **BBS-PC!** sub-directory type:

CD :BBS-PC!

and press Return. From there type:

BBSINIT

and press Return. The following is displayed:

BBSINIT - BBS-PC! Initialization - 4.20
Copyright (c) 1985,86,87 Micro-Systems Software Inc.

Generate parameter file?

Enter *Y* and press Return.

The following 4 prompts deal with the location of where your datafiles will reside.

Drive/path for message files:

Press Return for the default drive/path. The next prompt appears:

Drive/path for user files:

Press Return again. The next prompt appears:

Drive/path for U/D indexes:

Press Return. The last prompt appears:

Drive/path for log files:

Press Return. The next question asked is:

Generate main BBS files?

Enter *Y* and press Return. The following appears:

Enter up to 16 paths for U/D files

Drive/path #1:

Enter *DH0:BBS-PC!/UPDN/* and press Return. At the next prompt:

Drive/path #2:

Press Return. While as many as 16 drive/paths may be entered, one is enough for now. The next and last question is:

Initialize BBS node file?

Enter a *Y* and press Return. The following prompt appears:

Which node (1-99)?

Enter *1* and press Return.

BBSINIT now creates all the proper datafiles and initializes the system with a Sysop user record and other system defaults.

If you see the error message: *%% Can't create ISAM files %%*, then you did not answer the above prompts correctly or you entered a sub-directory or drive name which does not exist. You will need to repeat the above procedure, double-checking your entries.

EXPLANATION OF TERMS

Generate parameter file?

This question deals with the location of the **BBS-PC!** datafiles. If the files already exist and you wish to move them to a different location, for reasons of disk re-organization or simply personal preference, then answer *Y*. You will see four drive/path prompts, one for each set of datafiles.

The drive path can be any legal AmigaDOS pathname, with only two exceptions:

One: The pathname must end in a trailing forward slash /, or a : (colon) if you are using a drive designator and not entering a sub-directory path.

For instance you can enter *DF1:* or *DF1:BBS-PC!//MSG\$/*. The second example is used to segregate datafiles by file type.

Two: If specifying a sub-directory pathname, make sure that the sub-directory is first created with the AmigaDOS **MAKEDIR** command. If the sub-directory does not exist, **BBS-PC!** reports that it can't locate the ISAM files and refuses to boot.

If you change the drive/path names for the datafiles, make sure you copy them to their new location, or **BBS-PC!** will fail to boot.

Generate main BBS files?

This question deals with whether or not you wish **BBS-PC!** to initialize brand new datafiles. If you answer *Y*, **BBS-PC!** creates new datafiles, erasing whatever was there previously. If you are configuring **BBS-PC!** to look elsewhere for the datafiles when generating a new parameter file, answer *N* to this question.

Whenever you generate new BBS files you are prompted for 16 upload/download pathnames. These drive/paths are searched sequentially by **BBS-PC!** when a user requests a download. The first pathname entered contains all user uploads.

The same restrictions which apply to the four datafile drive/path name prompts, apply to the upload/download prompts. The sub-directories must exist and the pathnames must be terminated in a forward slash /.

Once you decide which sub-directories you are going to use for downloads, you can later update the **BBS.P** file with new upload/download paths. To do this, enter the following at the DOS prompt:

BBSINIT -U

and press Return. The current drive/pathnames are displayed on the screen and the following prompt appears:

Drive/path #1:

Remember, the first drive/pathname entered will be used for new uploads until changed by running **BBSINIT** at a later date.

Generate BBS node file?

The **NODExx.DAT** node file contains the information stored in the Modem, Node Defaults and pseudo filename counter. These values are discussed later in the manual. **BBS-PC!** automatically creates default values that initializes the system for a Hayes 1200 Smartmodem.

The creation of a node file means any information that has been changed in these sections automatically return to the default values. Therefore, it is recommended that you generate a BBS node file only once to prevent you from having to re-enter your preferred Modem or Node Defaults.

Normally, you only generate node number 1. At this time there is no second serial port available for the Amiga and as such **BBS-PC!** cannot support it.

Your **BBS-PC!** datafiles are now initialized. The next chapter covers the Local Menu functions and the statistics displayed on the screen.

CHAPTER 3 LOCAL MENU FUNCTIONS

BBS-PC! is delivered with generic menus to allow you to start using your system immediately.

At this time please boot **BBS-PC!**; log into the **BBS-PC!** disk and/or sub-directory, type:

BBS-PC! -C:

and press Return. The **-C:** instructs **BBS-PC!** to ignore any COM ports when booting. If your modem is not configured properly or if the COM port is missing, **BBS-PC!** may not load. This will avoid any problems before you perform the modem installation (covered in the next chapter).

After several seconds, the *Local Menu*, also known as the *Waiting for Call Menu*, appears. It looks like this:

(See illustration next page)

BBS-PC! USER'S MANUAL

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```
+-----BBS-PC 4.20 Node #1+
|
|      Exit program to DOS      |
|      Toggle Chat Option      |
|      Local BBS Log-in        |
|      Upload/Download module   |
|      Terminal module         |
|      Maintenance module       |
|
|      Chat: OFF                |
|      Modem: 0 1               |
|
| High: 0      Calls: 0      Dir/0: Empty |
| Msgs: 0      Users: 1      Files: 0     |
|
+-----+
```

5:15 PM 23-OCT-87

If this screen does not appear, you probably did something improperly during the installation process. Refer to Chapter 2 and repeat the BBSINIT procedure and making sure any error messages that appear are corrected in a manner the manual recommends. **NEVER** ignore an error message!

This screen displays whenever **BBS-PC!** is waiting for a caller. The Sysop has 6 options available from this menu. Each is selected by moving the highlighted bar with the arrow keys. To access one of these options, press Return when the item is highlighted.

After 5 minutes of inactivity, the screen blanks, to save wear and tear on your monitor. To re-display the screen press any key. Later you'll be shown how to configure **BBS-PC!** to turn the

screen on automatically when a new caller is detected.

The following options appear on this screen:

Exit program to DOS: Quits **BBS-PC!**. All open datafiles are closed and a command is sent to your modem to lower DTR, which should prevent your modem from answering a call.

Toggle Chat Option: Determines whether or not the Sysop is paged for an online "chat." Chat is a function where two people can "talk" to each other in real-time, via keyboard typing. If this option is on, when a user selects a menu item that executes the Chat function your local keyboard pages you with a bell for 30 seconds. After 30 seconds, the system informs the user that the Sysop is unavailable for Chat. To respond to a Chat prompt, press any key while the bell is ringing.

When in Chat, the user and the Sysop can type freely to each other without having to worry about what they type being taken as a command. As text is entered, **BBS-PC!** wraps the lines to the caller's screen size. To exit Chat, enter a / on a blank line and press Return.

If you do not wish to Chat, leave this option off. Press the Return key while the option is highlighted to toggle the Chat option on and off; the current status of Chat appears on this screen. The F1 key can be used to force a Chat interrupt should you wish to break in on a user while they are online.

Local BBS Log-in: Allows you to use the system as if you were calling remotely; all prompts and text files are displayed normally. There are two differences however. One is the inability to download a file locally. The other, the lack of a COM port buffer that **BBS-PC!** uses to check for special control characters to pause or abort listings.

When accessing **BBS-PC!** locally the regular DOS keyboard buffer is used and any type-ahead is taken literally. Remotely, the user

enters a series of commands, such as the Return key to keep reading messages, but if the user wished to pause a message currently on the screen, a Ctrl-S immediately causes the screen to pause; the remote buffer continually checks for such control characters.

The last three functions can be accessed through the Local BBS Log-in or directly, saving you much time from having to answer the system's log-in prompts.

Anytime one of these modules is accessed from the local keyboard, the Sysop account is used automatically. That means anyone with access to your computer has full Sysop-privileges. Be careful of whom you allow access to your computer.

Upload/Download module: Bypasses the local log-in procedure and allows you direct access to the file transfer section. Exiting from this menu returns you to the Local Menu screen.

Terminal module: Bypasses the local log-in procedure and allows you to dial out to another system in the terminal mode. Up to 15 names/numbers can be stored and manual dialing is supported. Exiting from this menu returns you to the Local Menu screen.

Maintenance module: Bypasses the local log-in procedure and allows you access to all the functions needed to maintain the system. Exiting from this menu returns you to the Local Menu screen.

There are various counters displayed in the Local Menu to keep you apprised of the status of the system. They are:

High: Reports the highest message number in the system, to allow you to easily keep track of the number of new messages that have been entered.

Calls: Reports the number of calls the system has had.

Dir/0: Displays either *Empty* or *Active*. *Active* informs you that someone has uploaded a file to your system. You will have to move the file within the file catalog so the rest of your callers can download it. *Empty* means no new uploads.

Msgs: Reports the number of current, active messages in the system.

Users: Keeps track of the number of members and/or registered users you currently have in the system.

Files: Reports the number of files currently entered in the upload/download file catalog.

Now you're ready to install your modem with **BBS-PC!**. This is covered in the next chapter.

CHAPTER 4 MODEM INSTALLATION

Pay particularly close attention to this section, as it will save you many hours of frustration and long-distance calls to Tech Support. If your modem switches and setup strings are not configured properly, **BBS-PC!** will not operate correctly.

If **BBS-PC!** is not booted, please do so now. Enter:

BBS-PC! -C:

and press Return. Move the highlight bar down to the Maintenance module with the down arrow key and press Return. When the Maintenance module prompt appears, select *M* for *Change modem defaults*. The following prompt appears:

Modem number (0-1)?

Please note the distinction between a number 0 and letter O.

If your modem is configured as COM1, select modem number 0 and press Return. If your modem is configured as COM2, then select modem number 1 and press Return. The following information is displayed:

Modem #0:

A: Default baud: 300
B: Modem type : 4
C: Setup string: ATSO=1E0QOV1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Enter line to change:

When you ran BBSINIT, the program automatically installed the above defaults, configuring **BBS-PC!** for a Hayes-compatible 300/1200 Smartmodem. First you'll examine these default modem settings and learn what each line contains to aid you with your own modem installation. At the end of this chapter there is a list of popular modems with settings that have been found to work properly with **BBS-PC!**.

Modem #x: is the header, where *x* represents the COM port the modem information is configured for. The settings under Modem #0 configure a modem connected to COM1. If your modem is connected to COM2, all related modem information is entered under Modem #1, **NOT** Modem #0. For systems using both COM ports and two modems, you can enter the same information under Modem #0 and Modem #1. If you have two different modems, **BBS-PC!** lets you configure each one separately.

Once you select the proper Modem # you are ready to discuss **WHAT** is entered. **When experimenting with different setup strings, modem types, etc., make sure you quit BBS-PC! by selecting Exit**

Program to Dos from the Local Menu and re-boot BBS-PC! before attempting to test the new modem changes. This way you'll be sure that BBS-PC! has sent the new instructions to your modem.

A: Default baud: The baud rate at which the setup string is sent to the modem. With some modem types, this is the same baud rate BBS-PC! expects result codes to be returned.

The default baud rate for the Hayes Smartmodem 300 and Hayes-compatibles is normally *300*, the Smartmodem 1200 and compatibles is *1200* and the Smartmodem 2400 and compatibles is *2400*. The default baud rate can be any one of these three values, depending on the Modem type. Most modems automatically switch baud rates to match the baud rate of the incoming call.

B: Modem type : Describes your modem's characteristics in a way that BBS-PC! can understand when sending certain types of commands. They are broken down according to the following types:

IBM MODEM TYPES

Type	Function
------	----------

- | | |
|---|---|
| 0 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. |
| 1 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. |
| 2 | Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. |
| 3 | Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. |

- 4 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again.
- 5 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again.
- 6 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each time true break is sent, **BBS-PC!** sends the modem the setup string again.
- 7 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each time true break is sent, **BBS-PC!** sends the modem the setup string again.
- 8 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 9 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 10 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. Ignores the status of pin

22. This modem type is used only when using the hardware method of baud detection.
- 11 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 12 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 13 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 14 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each time true break is sent, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.
- 15 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each time true break is sent, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 22. This modem type is used only when using the hardware method of baud detection.

AMIGA MODEM TYPES

Type	Function
-------------	-----------------

- | | |
|---|--|
| 0 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. |
| 1 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. |
| 2 | Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. |
| 3 | Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. |
| 4 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each OFF to ON transition of DTR, BBS-PC! sends the modem the setup string again. |
| 5 | Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each OFF to ON transition of DTR, BBS-PC! sends the modem the setup string again. |
| 6 | Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each time true break is sent, BBS-PC! sends the modem the setup string again. |

- 7 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each time true break is sent, **BBS-PC!** sends the modem the setup string again.
- 8 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 9 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the default baud rate. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 10 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 11 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 12 Turns off the DTR signal to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 13 Turns off the DTR signal to hang up the telephone, and

assumes that result codes are returned at the default baud rate. After each OFF to ON transition of DTR, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.

- 14 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the same baud rate as the last connection. After each time true break is sent, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.
- 15 Transmits "true break" to hang up the telephone, and assumes that result codes are returned at the default baud rate. After each time true break is sent, **BBS-PC!** sends the modem the setup string again. Ignores the status of pin 6. This modem type is used only when using the hardware method of baud detection.

When you configure **BBS-PC!** for your modem, the modem type is very important. **BBS-PC!** needs this information about your modem's characteristics for the two to work together properly. For most Hayes compatibles a modem type of 4 has been proven to be the most reliable as it re-sends the setup string after each caller logs off.

Line C: Setup string: A string sent to the modem that initializes it in preparation for use with **BBS-PC!**. A properly configured setup string goes a long way to work around switch settings (with the exceptions of DTR and carrier detect).

The setup string can be up to 40 ASCII characters. Within this string, you have the following control characters available:

Char Function

	Vertical bar. Sends a carriage return to the modem.
\	Backslash. Sends a line feed to the modem.
^	Carat. Sends the next character's "control" value. For example, ^A would send Ctrl-A.
~	Tilde. Causes a one second delay before sending the next character in the string.
'	Reverse apostrophe. Causes a 100ms delay between each character following in the string, slowing it down to typing speed.

The backslash and vertical bar are on the same key for many keyboards, as are the tilde and the reverse apostrophe.

What you enter for your setup string depends on how your modem is going to detect the baud rate. If you are going to use result codes (the recommended mode), then the modem must be in the "verbose" mode. There are two kinds of "verbose," numeric and word format. Make sure the result codes agree; what you configure the modem to report should coincide with what **BBS-PC!** expects. This is covered shortly.

If you are using the hardware method of baud rate detection, move pin 12 (HS) to the Ring Indicator pin (pin 22 for the IBM, pin 6 for the Amiga). Also configure the modem for the "quiet" mode.

Each of these setup strings must be terminated with a (|) vertical bar. This tells **BBS-PC!** to send a carriage return. On most keyboards, the vertical bar character is a Shift-\ (backslash).

The following is a break down of the Hayes modem setup string. Refer to this if your modem is not Hayes compatible:

C: Setup string: AT\$0 = 1\$2 = 25\$E0Q0V1X1|

Command Function

AT	Attention code that must precede every new command sequence.
\$0=1	Has the modem answer the phone on the first ring.
\$2=25\$	Changes the escape code sequence to a non-typeable character. If your modem doesn't support an escape code sequence past ASCII 127, enter a value that changes the default escape code to a character other than a + (plus sign).
E0	Disables command character echoing.
Q0	Result codes are sent to DTE (screen). If no result codes are sent by the modem, BBS-PC! cannot determine the baud rate of the incoming caller. Using the hardware method of baud rate detection for various computers is discussed in the following section.
V1	Result codes are sent in word format. For modems that do not return result codes in word format reliably, change this command to V0 to have result codes sent in numeric format. Make sure you also change the result codes within BBS-PC! to match those that your modem are returning.
X1	This command configures the modem to use basic status messages and return the CONNECT and CONNECT xxxx result codes.

These last two commands are optional and depending on the modem, may or may not work.

- B1** Places the modem in BELL mode. Most 2400 baud modems automatically switch to CCITT mode when 2400 baud is detected.
- M0** Turns the modem speaker off. M1 is the normal Hayes default and leaves the speaker on until carrier is detected. If your modem does not have a speaker, do not include this command.

This concludes the basic modem setup string for a Hayes or Hayes compatible modem. Some of the commands listed here are defaults used by most modems or functions that can be changed through the modem's DIP switches.

8MZ PC/XT/AT AND TANDY 2000 OWNERS

Owners of these machines have a much higher clock speed than the normal PC or PC/XT and you may find that a full speed transmission of the setup string is too fast and the modem misses some of the setup string. Therefore, you may wish to start your setup strings with a reverse apostrophe ('). This slows the transmission speed down and should enable the modem to operate correctly.

The recommended configuration for **BBS-PC!** is to use result codes and a normal serial cable containing no modifications. **If your modem cannot return result codes, you will have to use the hardware method of baud rate detection.** This allows 300 and 1200 baud rate detect by using pin 12 (High Speed Indicator) of the RS-232 interface. When carrier is detected, **BBS-PC!** automatically defaults to 300 baud. If pin 12 of your modem is activated, **BBS-PC!** switches to 1200 baud. For 2400 bps modem owners this procedure may not work correctly since most 2400 bps modems activate pin 12 only when 2400 bps is detected. As you can see, if your modem detects carrier at 2400 bps and **BBS-PC!** assumes 1200 bps operation because pin 12 is activated, the

Since the serial port of the IBM cannot "read" the status of pin 12, this signal has to be moved to another pin on the RS-232 interface.

Hardware detection of baud rate requires that either a special adapter be constructed to move pin 12 of the modem to pin 22 of the computer, or modify a cable to do so. It is much easier and far more reliable to use result codes than go through the trouble, time and expense to modify a serial cable.

If you **ARE** using the pin 22 method of detecting 1200 bps, you **MUST** remove **ALL** result codes from your modem defaults. These are not needed and will cause incorrect operation.

When using a Rixon modem in the Hayes compatible mode, make note of the fact that your modem does **NOT** support the extended result codes to indicate bit rate of incoming calls. You will **HAVE TO** use the pin 12 to pin 22 method of bit rate detection.

AMIGA BBS-PC! USERS

Your Amiga has a fast clock speed and you may find that a full speed transmission of the setup string is too fast and the modem misses some of the setup string. Therefore, you may wish to start your setup strings with a reverse apostrophe (`). This slows the transmission speed down and should enable the modem to operate correctly.

The recommended configuration for **BBS-PC!** is to use result codes and a serial cable that has pins 14, 21 and 23 removed or clipped off. These pins carry voltage which are used by some external devices. If your modem is not one of these external devices and if these pins are not removed, serious damage to your modem or computer may result.

If your modem cannot return result codes, you will have to use the hardware method of baud rate detection. This allows 300 and

1200 baud rate detect by using pin 12 (High Speed Indicator) of the RS-232 interface. When carrier is detected, **BBS-PC!** automatically defaults to 300 baud. If pin 12 of your modem is activated, **BBS-PC!** switches to 1200 baud. For 2400 bps modem owners, this procedure may not work correctly since most 2400 bps modems activate pin 12 only when 2400 bps is detected. As you can see, if your modem detects carrier at 2400 bps and **BBS-PC!** assumes 1200 bps operation because pin 12 is activated, the remote caller cannot log onto the system.

Since the serial port of the Amiga cannot "read" the status of pin 12, this signal must be moved to another pin on the RS-232 interface.

Hardware detection of baud rate requires that either a special adapter be constructed to move pin 12 of the modem to pin 6 of your Amiga, or modify a cable to do so. It is much easier and far more reliable to use result codes than go through the trouble, time and expense to modify a serial cable.

If you **ARE** using the pin 6 method of detecting 1200 bps, you **MUST** remove **ALL** result codes from your modem defaults. These are not needed and will cause incorrect operation.

When using a Rixon modem in the Hayes compatible mode, make note of the fact that your modem does **NOT** support the extended result codes to indicate bit rate of incoming calls. You will **HAVE TO** use the pin 12 to pin 6 method of bit rate detection.

The following examples support the same control characters as the setup string. This is important to know should your modem return a ^A as a result code.

Line D: Dial prefix : Contains the command string to let **BBS-PC!** call out through the modem. It is necessary if you are using the Terminal module. *ATDT* is a normal prefix command for a Hayes compatible modem with a phone line that supports tone dialing. A dial prefix of *ATDP* is used for a phone line that only supports

pulse dialing. If you have "Call Waiting" for your phone lines, you may be able to use a dial prefix of ATDT*70 or ATDPI170, which disables the feature for many calling areas. **Some phone companies charge extra each time Call Waiting is disabled.** Contact your local phone system for further information if you have any questions.

Line E: Dial suffix : Contains the necessary commands to terminate the Terminal module's command line. Normally, all that is needed is a (|) vertical bar, which tells **BBS-PC!** to terminate the command string with a Return key. In instances where the Terminal module aborts before carrier is detected, add a series of tildes (~) after the vertical bar. In effect, this adds one second (for each tilde entered), to the 30 second time delay built-in to the Terminal module. Hence, six tildes after the vertical bar actually uses a 36 second wait delay before aborting the call. If you utilize an alternate long distance dialing service, your calling code can be added to the dial prefix.

Line F: 300 result : The result code reported when the modem receives carrier at 300 baud. Usually this is *CONNECT*|, which adds a Return after the line, or *CONNECT*|\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line G: 600 result : The result code reported when the modem receives carrier at 600 baud. Usually this is *CONNECT 0600*|, which adds a Return after the line, or *CONNECT 0600*|\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line H: 1200 result : The result code reported when the modem receives carrier at 1200 baud. Usually this is *CONNECT 1200*|, which adds a Return after the line, or *CONNECT 1200*|\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line I: 2400 result : The result code reported when the modem receives carrier at 2400 baud. Usually this is *CONNECT 2400*|,

which adds a Return after the line, or *CONNECT 2400|*\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line J: 4800 result : The result code reported when the modem receives carrier at 4800 baud. Usually this is *CONNECT 4800|*, which adds a Return after the line, or *CONNECT 4800|*\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line K: 9600 result : The result code reported when the modem receives carrier at 9600 baud. Usually this is *CONNECT 9600|*, which adds a Return after the line, or *CONNECT 9600|*\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

Line L: 19200 result: the result code reported when the modem receives carrier at 19200 baud. Usually this is *CONNECT 19200|*, which adds a Return after the line, or *CONNECT 19200|*\, which adds a Return and a LF (linefeed) after the line; either is acceptable.

When using result codes: If your modem doesn't support a particular baud rate, please leave the result code alone. If the default result codes are different than the codes your modem returns, change only those result codes which apply. If you have a modem that detects baud rate at 300 or 1200 baud, do not remove the 600, 2400, 4800 and 9600 baud result codes because your modem doesn't support them.

If ONE result code is filled, all must be filled! In addition, if you command your modem to send a result string in verbose mode (either through a switch setting or the modem setup string), both **BBS-PC!** and your modem must agree on the result codes. If your modem returns numeric result codes (1, 5, 10), don't configure **BBS-PC!**'s result codes with words like *CONNECT 1200*. Enter the numeric value. If you are using the hardware method of baud rate detection, all result codes must be removed.

BBS-PC! should work with any modem that can return result codes at the default baud rate listed under line A or the same baud rate as the last connection.

If your modem cannot return result codes in either of these ways, you will have to use the hardware method of baud rate detection.

Lines A-L under Modem #1 are identical in content and nature with lines A-L under Modem #0. The only difference is one refers to a modem connected to COM1 and the other to COM2.

When experimenting with different setup strings, modem types, etc., make sure that you Exit Program to Dos and re-boot **BBS-PC!** before attempting to test the new modem changes. This way you'll be sure that **BBS-PC!** has sent the new instructions to your modem.

IMPORTANT POINTS TO REMEMBER

Your modem must honor DTR, unless "true break" is used. When **BBS-PC!** tells the modem to hang up the phone, the modem must respond. The modem type determines whether or not it actually lowers the DTR or sends a "true break" signal.

If the DIP switch or internal setting that controls DTR isn't set properly, or "true break" isn't supported, then no matter what command **BBS-PC!** sends to the modem to have it hang up on the caller (drop carrier), the modem ignores it. However, as long as carrier detect is honored a caller may hang up and the **BBS-PC!** resets normally.

If DTR is not honored and carrier detect is forced (reporting carrier detect when one is not present), the system cannot boot and display the Local Menu screen. **These two items alone represent 50% of Tech Support calls.**

If your Hayes compatible modem supports an escape code sequence past ASCII 127, it is recommended that you modify your setup

string to include the command $S2 = 255$, see the example under the Hayes Smartmodems. This disables the escape character and prevents anyone from placing your modem in the command state by sending it the escape code sequence over the phone lines, in effect, locking your system. No damage is done but it can be frustrating if a persistent would-be "hacker" finds that weakness and exploits it.

If the modem does not support an escape code sequence past ASCII 127 but allows you to change your escape code sequence to something other than + + +, change the $S2 = xxx$ value to something a user would not ordinarily enter from the keyboard, like $S2 = 38$. That command would instruct a Hayes or Hayes-compatible modem to change the modem's escape code sequence from + + + to &&&. Naturally, do not use this particular example, nor should you tell anyone your escape code sequence. This cannot prevent someone from placing your modem in the command state, but once a user finds that + + + fails, chances are they will be discouraged enough to not try something else.

This summarizes the information you should need to install your modem to work with **BBS-PC!**. The following is a list of popular modems and their settings. Copy the information into the proper fields, check the switch settings, exit and re-load **BBS-PC!** so the new modem settings are sent to the modem and you're ready to accept your first caller.

Many of these modem settings were sent by **BBS-PC!** users who have found them to work correctly with their computer/modem combination. If these settings are not correct, please write Micro-Systems Software so changes can be made to future documentation. For Hayes compatible modems that do not support an escape code sequence past ASCII 127, $S2 = 38$ is substituted. Please change this to an ASCII value more to your liking.

ADC

These modem settings are based on a Hayes compatible modem and appears as follows:

Modem #0

A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO-1S2-38E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

If a modem type of 4 does not work, try a modem type of 5. The modem's DIP switches should be set as follows:

Switch	Position
1	OFF
2	ON
3	OFF
4	OFF
5	ON
6	ON
7	OFF
8	OFF
9	OFF
10	OFF

Avatex 1200

The Avatex 1200 modem has become very popular Hayes compatible modem. Configure your modem switches as follows:

All DIP switches in the UP position

Data/Voice button IN

300/1200 button OUT

Your modem defaults are:

Modem #0

A: Default baud: 1200

B: Modem type : 1

C: Setup string: AT|

D: Dial prefix : ATDT

E: Dial suffix : |

F: 300 result : CONNECT|\

G: 600 result : CONNECT 0600|\

H: 1200 result : CONNECT 1200|\

I: 2400 result : CONNECT 2400|\

J: 4800 result : CONNECT 4800|\

K: 9600 result : CONNECT 9600|\

L: 19200 result: CONNECT 19200|\

Avatex 1200HC

This modem is reported to be 100% Hayes compatible. The following are the correct settings:

Modem #0:

A: Default baud: 1200
B: Modem type : 0
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

You may need to change some modem switches. Set the DIP switches in the following manner:

Switch	Position
1	UP
2	UP
3	UP
4	DOWN
5	UP
6	UP
7	UP
8	DOWN

CTS 2424ADH

The CTS 2400 baud modem is much like the Smartmodem 2400 in that both use non-volatile RAM which must be configured before using

with **BBS-PC!**.

You need a terminal program such as MTERM II or OnLine!. A series of AT commands are sent to the modem. The procedure is as follows: boot the terminal program and set the transmission speed to 2400 baud. Protocol must be set at 8 bits, no parity and 1 stop bit (8N1).

Type the following sequence of commands to the modem and press Return after each command:

Command	Meaning
AT&F	Resets modem to factory settings
AT&C1	True carrier detect
AT&D2	Hang up on DTR
AT&W	Write to permanent RAM

Make sure the modem echoes back "OK" after you press Return. If not, enter the commands again.

The last command is important, it writes lines two and three into the modem's non-volatile RAM. Otherwise, everytime the modem is turned off the command sequence would have to be re-entered. Once saved, you will not need to repeat the procedure, the information is stored indefinitely.

Notice the reverse apostrophe (') and tilde (~) in the setup string. The reverse apostrophe slows down the speed at which the modem setup string is sent to your modem and the tilde pauses for one second to allow the modem to initialize before sending the rest of the command string. A modem type of 5 is used.

The CTS 2424ADH modem defaults looks like this:

Modem #0:

```
A: Default baud: 1200
B: Modem type : 5
C: Setup string: 'AT~S0-1S2-255E0Q0V1X1B1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

Generic Smartmodems

The following has proven to be a reliable configuration for those modems claiming Hayes compatibility yet do not work properly with normal Hayes modem defaults.

If your modem does not support an escape code sequence past ASCII 127, change the S2=255 according to the instructions in the previous section, *IMPORTANT POINTS TO REMEMBER*. All modems with switch settings must be configured to honor DTR, except if "true break" is used, and report carrier only when a remote caller is connected.

The only real distinction of the generic smartmodem is the modem type 4. This re-sends the modem setup string after the connection terminates. All other settings are Hayes compatible.

Modem #0

A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

Hayes 300 & 1200 Smartmodems

Sets the Default baud to the type of Smartmodem you have. If you own a Hayes 300, then the default baud rate is *300*. Hayes 1200 Smartmodem owners can use a default baud of *1200*. The following are the correct settings for Hayes Smartmodems:

Modem #0:

A: Default baud: 300
B: Modem type : 0
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

You may need to change some modem switches. The Hayes Smartmodems 300 and 1200 have a series of DIP switches behind the

front panel of the modem. They should be set in the following manner:

Switch	Position
1	UP
2	UP
3	UP
4	DOWN
5	UP
6	UP
7	UP
8	DOWN

The two most important switches are numbers one and six. Switch number one configures the modem to honor DTR (Data Terminal Ready). When **BBS-PC!** sends the proper command, the modem lowers DTR, which drops carrier (hangs up the phone). Switch number six must be set to report carrier detect only when a remote caller is present.

Hayes Smartmodem 2400

The Hayes Smartmodem 2400 has no DIP switches. To configure it to work properly with **BBS-PC!**, use a terminal program such as **MTERM II** or **OnLine!**. A series of AT commands are sent to the modem. The procedure is as follows: boot up the terminal program and set the transmission speed to 2400 baud. Protocol must be set at 8 bits, no parity and 1 stop bit (8N1).

Type the following sequence of commands to the modem and press Return after each command:

Command	Meaning
AT&F	Resets modem to factory settings
ATB0	CCITT mode
AT&C1	True carrier detect
AT&D2	Hang up on DTR
AT&W	Write to permanent RAM

Make sure the modem echoes back *OK* after you press Return. If not, enter the commands again.

The last command is important, it writes the information into the modem's non-volatile RAM. Otherwise, everytime the modem is turned off the command sequence would have to be re-entered. Once saved, you will not need to repeat the procedure, the information is stored indefinitely.

The modem settings for the Hayes 2400 should look like this:

```
Modem #0:
A: Default baud: 2400
B: Modem type : 1
C: Setup string: AT&S0=1S2=255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

Miracle WS3000 (Europe)

Miracle modems are quite popular in Europe. Most European modems run at split speeds of 75/1200 baud or 1200/75 baud. Use the

following settings for this modem:

Modem #0:

A: Default baud: 1200
B: Modem type : 1
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 12|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Mitsubi SuperModem (300/1200)

This Hayes compatible modem should be configured in the following manner:

Modem #0

A: Default baud: 1200
B: Modem type : 4
C: Setup string: 'ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Set the modem's DIP switches as follows:

Switch	Position
1	UP
2	UP
3	UP
4	DOWN
5	UP
6	UP
7	UP
8	DOWN

Packard Bell IS/EM 2400

This modem has no DIP switches and to configure it to work properly with **BBS-PC!**, use a terminal program, such as **MTERM II** or **OnLine!**, to enter a series of AT commands to the modem. The procedure is as follows: boot up the terminal program and set the transmission speed to 2400 baud. Protocol must be set at 8 bits, no parity and 1 stop bit (8N1).

Type the following sequence of commands to the modem and press Return after each command:

Command	Meaning
AT&F	Resets modem to factory settings
ATB0	CCITT mode
AT&C1	True carrier detect
AT&D2	Hang up on DTR
AT&W	Write to permanent RAM

Make sure the modem echoes back *OK* after you press Return. If not, enter the commands again.

The last command is important, it writes the information into the

modem's non-volatile RAM. Otherwise, everytime the modem is turned off the command sequence would have to be re-entered. Once saved, you will not need to repeat the procedure, the information is stored indefinitely.

The modem settings for the Packard Bell IS/EM 2400 should look like this:

```
Modem #0:
A: Default baud: 2400
B: Modem type : 5
C: Setup string: ATSO-IS2-255EQOV1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

QMI1200ST

This modem operates at 300/1200 baud and should be configured as follows:

Modem #0:

A: Default baud: 1200
B: Modem type : 1
C: Setup string: ATS2=38Q0X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Qubie'

This Hayes compatible modem should be configured as follows:

Modem #0:

A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATS0=1S2=255EQ0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Locate the series of DIP switches behind the front panel of the modem and set them in the following manner:

Switch	Position
1	UP
2	UP
3	DOWN
4	DOWN
5	UP
6	UP
7	UP
8	DOWN

This modem has not been tested here at Micro-Systems. If these particular DIP switch settings do not work correctly, try placing DIP switch 3 in the UP position as if it were a Hayes modem.

Omega-80

This modem comes with its own built-in serial cable and power supply. This is an Amiga modem and the cable should not be tampered with. The following are the correct settings for the Omega-80:

Modem #0:

A: Default baud: 1200
B: Modem type : 0
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

Prometheus Promodem 1200

As with the Ven-Tel, this modem seems fairly Hayes compatible. Experience seems to indicate that the modem should be set for single digit result codes instead on English words. It seems to return those more reliably.

The modem settings are:

```
Modem #0
A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO-1S2-255E0QOV0X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : 1
G: 600 result : CONNECT 0600|\
H: 1200 result : 5
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

Make certain that you set your Promodem up to "honor DTR." They don't come from the factory this way, but it is controlled by a DIP switch.

The Prometheus Promodem 1200 external was tested here at Micro-Systems and did not operate in the same manner twice. Sometimes it would respond to DTR and sometimes it did not, with NO changes to either the software configuration or the modem DIP switches. Sometimes it returned the extended result code set and sometimes not, there was NEVER any rhyme or reason.

Therefore, this modem cannot be recommended for reliable **BBS-PC!** operation. While it DID work some of the time, it is impossible to pinpoint what conditions affected this.

Racal Vadic PC Modem

The Racal Vadic PC uses the following settings:

Modem #0:

A: Default baud: 1200
B: Modem type : 1
C: Setup string: ATSO-1S2-38E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

Radio Shack's DC-2212

Quite a few of you Model 1000, 1200HD, and 2000 owners may have the DC-2212. Unfortunately, this modem must be modified to work with BBS-PC!.

This modem does not report the baud rate of the incoming phone call in its factory configuration. To correct this, have the "RS-232 Extended Protocol" modification made by a Radio Shack technician. This modification is described on page 15 of the modem service manual and involves closing jumper W-1.

When this is complete, the DC-2212 (like the Hayes) reports baud rate on pin 12 of the RS-232 interface. You need to modify your cable or build an adapter box to move this signal to pin 22 (RI).

Default baud is 300 and modem type is 0. There are no result codes with this modem, since it is either hardware detection or

no detection at all.

If you happen to have a DC-2212 that does NOT have the modification for 1200 bps call reporting, use a modem type of 8 instead of 0. This instructs **BBS-PC!** to ignore the status of the pin 22 and expect every call to be the same as the default baud. This lets you answer either 300 or 1200 baud calls, but not both.

The modem settings for a DC-2212, appear as:

```
Modem #0
A: Default baud: 300
B: Modem type : 0
C: Setup string: '*.C~*.GA
D: Dial prefix : '*.DT
E: Dial suffix : 'X
F: 300 result :
G: 600 result :
H: 1200 result :
I: 2400 result :
J: 4800 result :
K: 9600 result :
L: 19200 result:
```

Radio Shack's Model 1000 Internal Modem Board

This modem is 300 bps only and is roughly compatible with the DC-2212. The only difference is the setup string and modem type.

Settings for this modem appear as:

Modem #0

A: Default baud: 300
B: Modem type : 10
C: Setup string: '*C-*GMAX
D: Dial prefix : '*DT
E: Dial suffix : 'X
F: 300 result :
G: 600 result :
H: 1200 result :
I: 2400 result :
J: 4800 result :
K: 9600 result :
L: 19200 result:

Radio Shack Modem II

There are three rocker switches on the front panel on the Model II. The "Man/Auto" switch is set to the "Auto" position, the "Org/Ans" switch is set to the "Ans" position, and the "Test" switch is set to the "Off" position. Make sure the "Force DTR" switch located on the back of the modem is set to the "Off" position.

When you turn on the Modem II, the CD light should NOT be lit. If it is, turn modem off and back on again. The Modem II has a 6 second delay period before the modem stabilizes. Give it this delay before you boot up the BBS program.

There are no result codes or setup strings for the Modem II. It is 300 bps only, so there is nothing to detect. The "Auto" switch makes the modem answer the phone, so no setup string is required.

The settings are:

Modem #0

A: Default baud: 300
B: Modem type : 10
C: Setup string:
D: Dial prefix : '*DT
E: Dial suffix : 'X
F: 300 result :
G: 600 result :
H: 1200 result :
I: 2400 result :
J: 4800 result :
K: 9600 result :
L: 19200 result:

Signalman Express

These settings are for the Anchor Automation Hayes compatible modem.

Modem #0

A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO-1S2-38EQOV1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

The modem's DIP switches are set as follows:

Switch	Position
1	OPEN
2	OPEN
3	CLOSED
4	OPEN
5	OPEN
6	CLOSED
7	CLOSED
8	CLOSED

Techmar 2400

This is a Hayes compatible modem. The only change required is a modem type of 4. The following are the correct modem settings:

Modem #0

A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\

US Robotics Courier 2400/Microlink 2400 & MultiTech Systems MultiModem224

These modems use the same switch settings, modem type and setup strings as the Hayes Smartmodem 1200. The first 8 switch settings are Hayes compatible and the rest left as factory

configured.

The following are the modem settings:

```
Modem #0:
A: Default baud: 2400
B: Modem type : 0
C: Setup string: AT$0-1S2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

US Robotics Courier HST 9600

This modem uses both DIP switches and RAM settings. To configure it to work properly with **BBS-PC!**, use a terminal program, such as **MTERM II** or **OnLine!**, to enter a couple of AT commands to the modem. The procedure is as follows: boot up the terminal program and set the transmission speed to 9600 baud. Protocol must be set at 8 bits, no parity and 1 stop bit (8N1).

Type the following sequence of commands to the modem and press Return after each command:

Command	Meaning
AT&F	Resets modem to factory settings
AT&A0	ARQ results suppressed
AT&W	Write to permanent RAM

Make sure the modem echoes back *OK* after you press Return. If

not, enter the commands again.

The last command is important, it writes the information into the modem's non-volatile RAM. Otherwise, everytime the modem is turned off the command sequence would have to be re-entered. Once saved, you will not need to repeat the procedure, the information is stored indefinitely.

The modem's DIP switches are set as follows:

Switch	Position
1	OFF
2	OFF
3	ON
4	OFF
5	OFF
6	OFF
7	OFF
8	ON
9	ON
10	OFF

The following are the modem settings:

Modem #0:

A: Default baud: 9600
B: Modem type : 0
C: Setup string: AT\$0=1S2-255E0M0|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\|
G: 600 result : CONNECT 0600|\|
H: 1200 result : CONNECT 1200|\|
I: 2400 result : CONNECT 2400|\|
J: 4800 result : CONNECT 4800|\|
K: 9600 result : CONNECT 9600|\|
L: 19200 result: CONNECT 19200|\|

Ven-Tel Half Card PC Internal Modem

This modem is Hayes compatible. The only difference is **BBS-PC!** must send the modem the setup string each time the phone connection is terminated. For that reason, set the modem type to 4.

This modem lacks the 8 DIP switches of the Hayes. Therefore, use the setup strings to control ALL areas of modem configuration. The settings are:

```
Modem #0
A: Default baud: 1200
B: Modem type : 4
C: Setup string: ATSO=1S2=255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

Zenith 2400

The Zenith 2400 has no DIP switches. To configure it to work properly with **BBS-PC!**, use a terminal program, like **MTERM II** or **OnLine!**, to enter a series of AT commands to the modem. The procedure is as follows: boot up the terminal program and set the transmission speed to 2400 baud. Protocol must be set at 8 bits, no parity and 1 stop bit (8N1).

Type the following sequence of commands to the modem and press

Return after each command:

Command	Meaning
AT&F	Resets modem to factory settings
ATB0	CCITT mode
AT&C1	True carrier detect
AT&D2	Hang up on DTR
AT&W	Write to permanent RAM

Make sure the modem echoes back *OK* after you press Return. If not, enter the commands again.

The last command is important, it writes the information into the modem's non-volatile RAM. Otherwise, everytime the modem is turned off the command sequence has to be re-entered. Once saved, you will not need to repeat the procedure as the information is stored indefinitely.

The modem settings for the Zenith 2400 should look like this:

```
Modem #0:
A: Default baud: 2400
B: Modem type : 1
C: Setup string: AT$0-1$2-255E0Q0V1X1|
D: Dial prefix : ATDT
E: Dial suffix : |
F: 300 result : CONNECT|\
G: 600 result : CONNECT 0600|\
H: 1200 result : 5CONNECT 1200|\
I: 2400 result : CONNECT 2400|\
J: 4800 result : CONNECT 4800|\
K: 9600 result : CONNECT 9600|\
L: 19200 result: CONNECT 19200|\
```

MODEMS NOT RECOMMENDED FOR USE WITH BBS-PC!

AST Reach modem

As tested, this modem sends the result codes to the computer at the baud rate of the INCOMING phone call. Since there is no way for the BBS to know what this baud rate is, it cannot correctly read the result codes.

In conclusion, the AST Reach modem is not well-suited for use in an host environment (although it may function FINE as a terminal) and cannot recommend it for use with **BBS-PC!**.

ANY modem that returns result codes in the above manner is unsuitable for use with **BBS-PC!**.

This concludes the modem installation. Your **BBS-PC!** is just about ready to accept your first caller. The next chapter covers some system defaults and familiarizes you with some of the functions and procedures **BBS-PC!** utilizes.

CHAPTER 5 SYSTEM DEFAULTS AND TEXT FILES

This section covers the various system defaults you should be familiar with before starting your system. Each of these text files is listed. They can be edited for your own use.

INITIALIZING NODE DEFAULTS

Now that the modem is installed properly, **BBS-PC!** needs to know a couple of things about your COM port(s).

If **BBS-PC!** is not booted, please do so. This time do not use the **-C:** option.

If the Local Screen doesn't display and it appears that **BBS-PC!** is locked up, refer to Chapter 4, "*Modem Installation*." There is a good possibility that your modem is forcing DTR and CD. For the time being, turn your modem off and the Local Screen should appear.

If **BBS-PC!** aborts and returns to DOS, then the datafiles are corrupt, possibly because you did not use the Exit program to DOS option to quit the program. Refer to Chapter 10, "*BBS-PC! Utilities*" and read the section titled "*BBSFIX*."

When the Local Screen appears, move the highlight bar down to Maintenance module and press Return.

When you see the menu prompt, select option *V* for Edit Node Defaults to display the following:

Node defaults:

A: File open mode : IPL
B: Wake-up on call: No
C: Local bell : Off
D: Window frame : On
E: Active lines : 0
F: Polled lines : 0

Enter line to change:

These are the Node defaults. Below is a list of what each item represents.

A: File open mode: Select this item to display the following:

Opens on login (Y/N):

This determines how **BBS-PC!** opens its data files. Two methods are available, IPL and Login. The default mode is IPL (No) which stands for Initial Program Load. This opens the data files once when **BBS-PC!** is booted up and keeps them open until you close down the program by exiting to DOS. The Login (Yes) method opens the data files during an incoming call and automatically closes them when the call is terminated.

For systems with floppy drives, IPL is recommended. Since floppy drives can take 20 or 30 seconds to open the required data files, a caller may think the system is locked up while waiting for **BBS-PC!** to respond. One drawback to this mode is that if the system should suffer a crash due to a power out, **BBSFIX** has to be run to repair the corrupt datafiles. However, the convenience of a much faster system should offset any drawbacks.

Hard drive users should use the Login method. With fast access hard drives, the delays in opening and closing the data files between callers are minimal.

IBM MODIFICATIONS

One possible modification to your DOS environment to improve the Login performance is to increase the number of file buffers in your CONFIG.SYS file. Here are a couple of examples:

BUFFERS=16

This is the maximum recommended buffers for DOS 2.1 users.

BUFFERS=32

This value can be changed, depending on your system environment.

Add one of the above statements to your CONFIG.SYS file, which is located in the root directory of your boot disk. If you have difficulties, refer to your DOS user's manual.

AMIGA MODIFICATIONS

One possible modification to your AmigaDOS environment to improve the Login performance is to add the following statement(s) to your Startup-Sequence:

ADDBUFFERS DF0: 16

ADDBUFFERS DF1: 16

ADDBUFFERS DH0: 16

If one of the drives does not exist on your system, don't include that particular ADDBUFFERS statement. It is not recommended you exceed a value of 30 for ADDBUFFERS. If you have difficulties, refer to your AmigaDOS user's manual.

B: Wake-up on call: Select this item to display the following:

Wake-up on call (Y/N):

This item allows you to choose whether the screen turns itself on when a caller logs in. From the Local Menu screen, **BBS-PC!** turns the screen display off after 5 minutes of inactivity. If option **B** is set to *Yes*, the screen automatically displays the activities of the new caller. You will probably set this to *Yes* at first, as all new Sysops are curious to see how their system runs. After awhile, you may want to turn it off once the novelty wears away.

Regardless of whether the screen is active or inactive, you always have manual control. The **F9** key toggles the screen on and off locally. Press any key to activate a blank screen.

C: Local Bell: Select this item to display the following:

Local bell (Y/N):

This item controls whether your computer's bell rings locally. There are advantages and disadvantages to both. If the bell is on, you'll hear it everytime they press improper commands. This can be an annoying late-night alarm clock. **BBS-PC!** always rings the bell when Chat is ON, regardless of whether or not the local bell is on.

D: Window frame: Select this item to display the following:

Window frame (Y/N):

If you want the screen display surrounded by a border, answer *Yes*. This also reduces your local text display to 78 columns, which prevents you from viewing the **STATS.TXT** file created by **BBSINFO** or any other text files formatted to 80 columns.

E: Active line: Select this item to display the following:

COM lines:

IBM USERS

This configures **BBS-PC!** for the number of COM ports you are using. *0* indicates COM1 is available and *1* applies to COM2. If you have both active, enter *01*. Do not list a non-existent or inactive COM port or **BBS-PC!** will lock up when it tries to locate it. Press Return to have **BBS-PC!** use the current settings.

AMIGA USERS

At this time, only one serial port is available for the Amiga. Therefore, only enter *0* as the active COM port.

F: Polled lines: Select this item to display the following:

Poll lines:

This informs **BBS-PC!** which of the active COM lines you've installed are polled (monitored) for an incoming call. The same rules apply here as with option E: do not poll a non-existent COM port. You may have two active COM ports but only choose to poll one of them for incoming callers. Press Return to have **BBS-PC!** use the current settings.

If you make the mistake of improperly installing an active or polled COM port, **BBS-PC!** will lock up when booting. Should this happen, do the following and re-configure your node defaults.
Type:

BBS-PC! -C:

and press Return. This boots **BBS-PC!** and instructs it to ignore both COM ports. Notice that there is no blinking cursor over either of the polled COM ports on the Local Menu. Now go back to Node Defaults through the Maintenance module and make the necessary corrections.

CHANGING A SPECIFIC NODE

BBS-PC! allows you to boot to a specific node if multiple nodes are installed. Type:

BBS-PC! -N:x

and press Return, where *x* is the node to log into. The default is node 1, which looks for the NODE01.DAT file installed with **BBSINIT**. Attempts to boot **BBS-PC!** to a non-existent node will fail.

If you installed two nodes with **BBSINIT**, to log into node number 2, enter:

BBS-PC! -N:2

and press Return.

To install multiple Node Defaults, repeat the above procedure for each node.

ADDING A SYSOP PASSWORD

When **BBSINIT** created the datafiles, a Sysop user record was installed that gives anyone using the name **SYSOP** full access to the system. Before you let anyone call your system, you first need to add a password to the Sysop record. Otherwise, someone can log on as Sysop and have full run of your system.

From the Maintenance module, select *L* to List users. The Sysop record appears since it is the only record in the user file.

```
Sysop                               Ph:
                                   Tm: Standard
-----
Last call : 05-MAR-87   RD access: 0123456789ABCDEF
Password  :             WR access: 0123456789ABCDEF
Time limit: 120        UP access: 0123456789ABCDEF
Privilege : 255        DN access: 0123456789ABCDEF
D/U ratio : Disabled   SYSOP   : 0123456789ABCDEF
Downloads : 0          Uploads : 0
Calls     : 2          Messages : 0
```

(D E L M Q):

All items displayed above are covered thoroughly in Chapter 7.

At the prompt, enter *E* for Edit and press Return. The following information appears:

```
Sysop

A: RD access : 0123456789ABCDEF
B: WR access : 0123456789ABCDEF
C: UP access : 0123456789ABCDEF
D: DN access : 0123456789ABCDEF
E: SYSOP    : 0123456789ABCDEF
F: Privilege : 255
G: Time limit: 120
H: D/U ratio : Disabled
I: Menu set  : 0
J: Location  :
K: Phone no  :
L: Call back : No
```

Enter line to change:

All the above items are covered thoroughly in Chapter 7.

Enter *J* for Location and press Return. Enter your city, state

and press Return to complete the entry. The Sysop's record is shown again, displaying the added information.

Now select *K* for Phone and press Return.

Enter your phone number (optional) and press Return, the Sysop's record appears again. Press / (slash) and then Return to display:

Sysop

West Palm Beach, FL

790-0770

```
1: Terminal   : Standard
2: Sections   : 0123456789ABCDEF
3: Password   :
4: Status     : Expert
5: Protocol   : Text
6: CLS codes  : 12 0 0 0
7: BS codes   : 8 0 0
8: Page size  : 76 x 24
9: Linefeeds  : Yes
0: NULS       : 0
```

Enter line to change:

All the above items are covered thoroughly in Chapter 7.

This is the same information a user sees when option *O* for View/edit your user options is selected from the Main Menu.

Enter 3 and press Return to enter your **Password**. **DO NOT GIVE YOUR SYSOP'S PASSWORD TO ANYONE!** When the password is entered, press Return twice. The following information is displayed:

Sysop	Ph: 790-0770
West Palm Beach, FL	Tm: Standard

Last call : 05-MAR-87	RD access: 0123456789ABCDEF
Password : BBS-PC!	WR access: 0123456789ABCDEF
Time limit: 120	UP access: 0123456789ABCDEF
Privilege : 255	DN access: 0123456789ABCDEF
D/U ratio : Disabled	SYSOP : 0123456789ABCDEF
Downloads : 0	Uploads : 0
Calls : 2	Messages : 0

(D E L M Q):

Press Return to continue listing users. Since there is only one user in the system the listing aborts and returns you to the Sysop function menu prompt. At the menu prompt, press the F2 key to exit BBS-PC!. **Exiting a BBS-PC! session with the F2 key is the ONLY way to save changes made to the Sysop's record.**

Once the password is entered, NEVER make changes to the Sysop account in regard to privilege levels and section access.

ADDING AN ALTERNATE SYSOP

With the Sysop's account passworded properly, another precaution should be taken. One security feature of **BBS-PC!** is it doesn't allow a user to give themselves or anyone else in the system higher access than what they have themselves. This prevents a user from promoting themselves to Sysop access and having free reign over your system.

Along the same lines, if the Sysop's record is accidentally changed or deleted, it is almost impossible to continue normal system maintenance. For this reason you are going to prepare another "master account" as insurance.

From the Local Menu screen, highlight the Maintenance module and press Return.

When the SYSOP function prompt appears, enter *A* for Add a user and press Return. The following is displayed:

User name:

Enter your name and press Return. Something similar to below should appear:

John Doe

```
A: RD access : 01234567
B: WR access : 01234567
C: UP access : 01234567
D: DN access : 01234567
E: SYSOP      :
F: Privilege  : 10
G: Time limit: 60
H: D/U ratio  : Disabled
I: Menu set   : 0
J: Location   :
K: Phone no   :
L: Call back  : No
```

Enter line to change:

All the above items are covered thoroughly in Chapter 7.

A: RD access: Select this item to display the following:

Read access:

This prompt requests the section numbers you wish the user to have Read Message access. Enter the following:

+!

and press Return. The + (plus sign) is used to indicate that

section numbers are being added and the ! means add ALL sections automatically.

The user record now displays something similar to the following:

John Doe

```
A: RD access : 0123456789ABCDEF
B: WR access : 01234567
C: UP access : 01234567
D: DN access : 01234567
E: SYSOP      :
F: Privilege  : 10
G: Time limit: 60
H: D/U ratio  : Disabled
I: Menu set   : 0
J: Location   :
K: Phone no   :
L: Call back  : No
```

Enter line to change:

The next item is:

B: WR access: Select this item to display the following:

Write access:

This item looks for the section numbers to which the user has Write Message access. Enter +! and press Return.

After the user record is re-displayed, follow the same procedure for items **C** for **UP** (Upload file), **D** for **DN** (Download file) and **E** for **SYSOP** access. **SYSOP** access to a section allows certain privileges the normal user does not have. Section Sysop privileges are covered later in the manual.

F: Privilege: Select this item to display the following:

Access privilege:

Enter **255** and press Return; **BBS-PC!** supports access privileges from 0-255.

G: Time limit: Select this item to display the following:

Time limit (min):

Enter **120** and press Return. This gives you a full 2 hours of access to the system.

Items H, I and L can be skipped at this time and are covered in Chapter 7. The next item is the user's location.

J: Location: Select this item, enter your city, state and press Return.

K: Phone no: This item is optional.

The user's record should appear similar to the one below:

John Doe

A: RD access : 0123456789ABCDEF
B: WR access : 0123456789ABCDEF
C: UP access : 0123456789ABCDEF
D: DN access : 0123456789ABCDEF
E: SYSOP : 0123456789ABCDEF
F: Privilege : 255
G: Time limit: 120
H: D/U ratio : Disabled
I: Menu set : 0
J: Location : West Palm Beach, FL
K: Phone no : 790-0770
L: Call back : No
Enter line to change:

The next thing you'll do is add a password. Enter a / (slash) and press Return to display the user options.

At the prompt, select the following item:

3: Password:

and enter a password that is different than the one entered in the Wizard Sysop account. **DO NOT GIVE YOUR PASSWORD TO ANYONE**

If you do not wish to see a menu displayed each time you change from one menu to another select option 4. This prompt is displayed:

Expert user (Y/N):

Enter Y and press Return. Now, when switching from one menu to another the new menu does not appear automatically.

Your defaults appears similar to the following:

John Doe
West Palm Beach, FL
790-0770

```
1: Terminal   : Standard
2: Sections   : 0123456789ABCDEF
3: Password   : SYSOP
4: Status     : Expert
5: Protocol   : Xmodem
6: CLS codes  : 12 0 0 0
7: BS codes   : 8 0 0
8: Page size  : 80 x 24
9: Linefeeds  : Yes
0: NULS       : 0
```

Enter line to change:

All the above items are covered thoroughly in Chapter 7.

If everything looks correct, press Return to display:

John Doe added to user file

This protects you in the event anything happens to your Wizard Sysop account.

BBS-PC! TEXT FILES

This last section covers the various text files **BBS-PC!** displays, those automatically called from **BBS-PC!** and those called from the sample menus included with **BBS-PC!**.

Your text files can be easily identified, the filenames contain a ".TXT" filename extension. To verify the existence of these files, follow the instruction below.

IBM OWNERS

Log into the drive/path containing your **BBS-PC!** files and type:

DIR *.TXT

and press Return.

AMIGA OWNERS

Log into the drive/path containing your **BBS-PC!** files, type:

DIR #?.TXT

and press Return.

If nothing appears on the screen, double-check how you entered the command. If you accidentally deleted them, copy them from

your master disk.

This first set of text files are the ones **BBS-PC!** displays automatically:

BULL-1.TXT This is the section 1 bulletin displayed to each user each time you reset the bulletin flag for section 1. Bulletins for other sections are created under the name(s) **BULL-x.TXT**, where *x* is the section number (0-F). Bulletins and section names are covered in detail in Chapter 7.

CALLBACK.TXT The text file displayed to users who have callback security selected in their user log.

EDITHELP.TXT The help file displayed from the Message function sub-menu. It contains help information and examples for all message functions.

LOCKOUT.TXT Text file displayed to users who have a privilege access of 0, which prevents the user from accessing the system. This file can be brief by displaying a notice that their access has been revoked or explicit enough to include the nature of the user's offense and steps that may be taken by the user to restore system privileges.

LOGIN.TXT The text file displayed after the user responds to the **Press [RETURN]** prompt and before the caller is prompted for their name. The file generally includes system hours, the Sysop's name and some mention of the system's interests.

LOGOUT.TXT This text file appears when the user exits the system. The file should contain a brief "thank you for visiting" your system.

NEWUSER.TXT This is displayed before any section bulletins to a

new user who has not applied as a member or guest of the system. Here you can include in-depth information about your system as well as rules or guidelines for using the system.

REGISTER.TXT This displays information about what is required by the system when they select the *Apply for membership* function.

The following text files are displayed from the sample menus provided with your **BBS-PC!** system.

BBSHELP.TXT Contains help with main **BBS-PC!** commands.

BBSINFO.TXT General information about your system.

SIGNUP.TXT Bulletin about membership requirements and validation procedures.

UDHELP.TXT Help file for uploading and downloading.

UDINFO.TXT Information about the types of files allowed by the system.

Please refer to these sample text files for ideas when creating your own text files.

CREATING TEXT FILES

IBM USERS

BBS-PC! text files can be created by any text editor or word processor that saves files in ASCII format, where each line or paragraph is terminated in CR + LF (carriage-return, linefeed) format, or LF (linefeed) only format; no high bits may be saved with the file.

On your master disk you'll find a copy of our own word processor,

MSCRIP.T.EXE, which is perfect for creating text files. When using **MSCRIP.T**, each time the Return key is pressed a LF is inserted and a new paragraph is started.

BBS-PC! can format text files, such as those created with **MSCRIP.T**, by wrapping the text to match the user's column width. This allows a user with a 40 column screen display to have the text file appear properly formatted for their screen; the same principle applies to the user with a 65 or 80 column display.

If you do not wish your text files to be formatted to the user's terminal settings, then the text file can be stored as unformatted. In instances where you are displaying columns of data or an intricate pattern of characters that form a picture, an unformatted text file is necessary.

The only difference between a formatted and unformatted text file is the location of the CR + LF or LF. Formatted text files contain end of line characters only at the end of the paragraph. Unformatted text files, which are displayed as entered, contain end of line characters at the end of each and every line.

You can easily test the difference by creating a sample text file with **MSCRIP.T**. Change your terminal definition screen width within **BBS-PC!** observe how the text file adjusts to the column width you select. Once that is done, return to **MSCRIP.T** and manually press Return at the end of each line (not the paragraph) and see the difference in how **BBS-PC!** displays the text file as you change the column width. **MSCRIP.T** can easily create unformatted text files by printing the text file out to a disk file. When **MSCRIP.T** stores a document to a disk file, each line is terminated with a CR + LF.

AMIGA USERS

BBS-PC! text files can be created by any text editor or word processor that can save files in ASCII format, where each line or paragraph is terminated in CR + LF (carriage-return, linefeed)

format, or LF (linefeed) only format; no high bits may be saved with the file.

You'll find that Micro-Systems Software's **SCRIBBLE!** is perfect for creating text files. When using **SCRIBBLE!**, each time the Return key is pressed a LF is inserted and a new paragraph is started.

BBS-PC! can format text files to the user's column width, such as those created with **SCRIBBLE!**, by wrapping the text to match the user's column width. This allows a user with a 40 column screen display to have the text file appear properly formatted for their screen; the same principle applies to the user with a 65 or 80 column display.

If you do not wish your text files to be formatted to the user's terminal settings, then store the text file as unformatted. In instances where you are displaying columns of data or an intricate pattern of characters that form a picture, an unformatted text file is necessary.

The only difference between a formatted and unformatted text file is the location of the CR + LF or LF. Formatted text files contain end of line characters only at the end of the paragraph. Unformatted text files, which are displayed as entered, contain end of line characters at the end of each and every line.

You can easily test the difference by creating a sample text file with **SCRIBBLE!**. Change your terminal definition within **BBS-PC!** and observe how the text file adjusts to the column width you select. Once that is done, return to **SCRIBBLE!** and manually press Return at the end of each line (not the paragraph) and see the difference in how **BBS-PC!** displays the text file as you change the column width.

Use AmigaDOS ED program to create unformatted text files. **SCRIBBLE!** easily creates unformatted text files by printing the text to a disk file, when you select **Print Go File**. When

SCRIBBLE! stores a document to a disk file, each line is terminated with a CR + LF.

CONCLUSION

This concludes the basic setup required by **BBS-PC!**. The next chapter covers your first caller and general system usage.

CHAPTER 6 BBS-PC! OVERVIEW

This chapter teaches you the basics of **BBS-PC!** so you can start using the program while continuing to learn about its powerful capabilities.

IBM USERS

If you use an **AUTOEXEC.BAT** file, you may want to modify it to log to where **BBS-PC!** is located and automatically boot **BBS-PC!**.

AMIGA USERS

From the sub-directory where **BBS-PC!** is located type the following:

EXECUTE INSTALL-SS

and press Return. This copies a new Startup-Sequence over the old. When you re-boot your computer with the **BBS-PC!** disk, **BBS-PC!** is automatically loaded. In addition, you are prompted to enter the correct time and date. If you have a real-time clock feel free to make changes to the Startup-Sequence. The AmigaDOS ED program or Micro-Systems Software's **SCRIBBLE!** is perfect for editing.

BBS-PC! automatically boots with a custom screen. To switch between the Workbench screen and the **BBS-PC!** screen you can use the screen depth arrangers from the Local Menu or press the Left__Amiga N and M keys.

Press Left__Amiga N to display the Workbench screen. Then press the left mouse button to activate a window. To return to **BBS-PC!**'s custom screen, press Left__Amiga M and then the left mouse button to activate the **BBS-PC!** screen. If you're using window borders in **BBS-PC!**, click the mouse button within the blue border.

If you're multi-tasking with another program that's using a custom screen, use the screen depth arranger to push one custom screen behind the other.

YOUR FIRST CALLER

Take this opportunity to edit the LOGIN.TXT and BULL-1.TXT to something more to your liking. The other text files can be edited later, as needed.

You're ready to accept your first call. Please boot up **BBS-PC!**. When the Local Screen appears, select the Local BBS Log-in option and press Return.

For this chapter, you're going to be your first caller. One advantage to using the Local BBS Log-in option is the system performs almost the same locally as when someone calls remotely.

The first thing that happens is the display of two window boxes: a yellow status box at the top of the screen and a blue one below. User information is displayed in the yellow box and is not seen by the remote caller. Anything displayed below the status box is identical to what the remote user sees.

The status box stays blank until the user actually logs in. Below, the LOGIN.TXT appears and the *Your name:* prompt.

Enter a name that is not found in the user file, *John Doe*, for example. The two user records already entered are members and for this exercise you want to see the same things as a new user.

The next prompt is *City, State:*. Fill in the prompt and press Return. Next you are prompted to confirm your entry. If everything is correct, press *Y* and then Return. Guests and Members are prompted for a password, which is echoed back as # (pound signs).

The caller number and the time and date is displayed. Immediately after, the NEWUSER.TXT file appears.

The status box now contains the user's name, location and terminal type along the top line. The border of the status box displays the caller's baud rate, the node number and communications parameters. The second line displays:

Stat: *New* is the default for the first time caller or someone who hasn't applied for membership. Once the user applies for membership, they become a *Guest*. After being validated by the Sysop the Stat displays *Member*.

Calls: The number of times a user has called your system.

Msgs: This is the number of messages the user has left on your system.

Upls: The number of files the user has uploaded (sent to you).

Dnls: The number of files the user has downloaded (received from you).

Last on: The last time the user logged onto the system. If it is a new user, the current date appears.

At the bottom of the screen a - *More (Y)/N/NS?* prompt appears. In **BBS-PC!**, all the built-in bulletins, except for LOGIN.TXT, pause at the end and also at the line number selected by the user's page-length option.

Whenever you see a *More* prompt, press *Y* to continue, *N* to abort or *NS* to continue displaying the bulletin without pausing at each page. Press Return to display the next page or bulletin.

After the NEWUSER.TXT bulletin finishes, the BULL-1.TXT section bulletin appears and pauses at the end.

The caller statistics are shown and basically display the same information found in the status box. Immediately afterwards the main menu scrolls:

```
+-----MAIN MENU-----+
| B: Bulletins and information |
| C: Chat with the SYSOP      |
| E: End this call (goodbye)  |
| F: File transfer menu       |
| L: Leave a message          |
| M: Mask out unwanted sections |
| O: View/edit your user options |
| P: Private EMAIL menu       |
| Q: Questionnaire            |
| R: Read messages            |
| S: Scan message headers     |
| T: Time used during this call |
| U: Display recent callers    |
| V: Voting Booth              |
| X: Toggle expert menus on/off |
| Y: Show your caller statistics |
+-----+
A: Add yourself to user files
```

Main Func (? for menu):

Spend some time looking through the menu items. You'll notice as you go from one menu to another that it automatically displays.

All new users are considered Novices. After you apply for membership you'll change your status to Expert so new menus won't appear automatically.

Select item *A* to add yourself to the user files. The REGISTER.TXT is shown. After you have spent some time using your system you may have different rules and regulations and should modify this text file to reflect those changes.

You're prompted for your name again; many people call in using false names and often enter their real name here when they see it is required. Location, phone number and a password are also entered.

It cannot be stressed enough the importance of not revealing any of your passwords. Make sure you use a different password than selected for your Sysop or alternate account.

After the password a couple of terminal definitions appear. Select one of them and press Return. **BBS-PC!** permits 10 terminal types to be defined. This automatically enters the proper screen codes, screen width and page size into your user record. While you can always change the screen codes, most of the time it is unnecessary and also saves your users much time and frustration.

The next prompt is the file transfer protocol. Select the one which is the fastest your telecommunications program supports. They are listed below, roughly in order of transfer speed. This list may not be 100% accurate but is a good reference point should one of your users have questions.

ASCII Text

Kermit

Xmodem

Xmodem-CRC

Ymodem-Batch

Ymodem

Zmodem

For now, select any one of the protocols and press Return. Each protocol is discussed in the section titled *FILE TRANSFERS*, found later in this chapter.

You're prompted to confirm your choices. If everything is correct, press *Y* and then Return. The message *John Doe added to user file* appears and the main menu scrolls on the screen. A choice of *N* allows you to enter your information again.

The status box at the top of the screen now lists you as a Guest instead of New user.

Notice the main menu no longer has the menu item to add yourself to the user files. One of **BBS-PC!**'s strengths is its ability to hide menu items outside a user's privilege range or section mask. Menus, privilege ranges and section masks are discussed thoroughly in Chapter 8.

If you're tired of menus appearing automatically, select item *O* to View/edit your user options. From here users can change many of their user defaults. When the options appear, choose item *4* and respond with a *Y* at the prompt. Press Return twice to exit to the main menu.

The next topic covers one of the more useful features of an electronic bulletin board -- the message base.

THE MESSAGE BASE

The message base is the most often or least used feature of your system. This depends on the type of system you're running. Some BBS's devote themselves exclusively to file transfers and ignore the message system. The Sysop's participation often means the difference between an active message base and one which gathers dust.

BBS-PC! stores all message information in 3 separate files. Through the use of privilege levels, section masks and menus, **BBS-PC!** gives the illusion of a system with one large message base or many sub-boards. Chapter 8, *Menu Customization*, covers these topics thoroughly.

For now, **BBS-PC!** currently has two sections numbers installed, section 0 and 1. These should suffice while you become familiar with **BBS-PC!**.

Since the message base is currently empty, the first thing to learn is how to leave messages. From the Main menu, choose item *L* for Leave a message. As each prompt in bold appears, enter the information to the right.

To: SYSOP

Subject: Test

1: This is a test message to the Sysop.

2:

Subcommand: ?

The first prompt is the person to whom the message is addressed, in this case, the Sysop. The next is the subject of the message, which indicates the message topic. Press Return after you enter the proper information in each of the prompts.

If a users tries to leave a message to someone not registered on your system or misspells someone's name, the message *User not in file, continue (Y)/N?* appears. The default is Y. When a user leaves a message in an open section where anyone can read it, the exact name is not really necessary. However, when you leave private messages in an E-Mail section, the exact name has to be entered or the recipient is never flagged to read the message.

To abort the message when the user's name is not found, enter *N*. You return to the menu from where the leave message is selected.

Complete the first two prompts and enter the first line of the message.

Whenever a line is longer than the screen width, it is automatically word-wrapped. Messages can be any number of lines, as long as the message does not exceed 2048 bytes (2k). When the message size approaches its maximum, **BBS-PC!** displays the number of characters remaining.

While the message is being entered, you may press Ctrl-X or Esc to erase to the beginning of the line.

Press Return twice to display the *Subcommand* prompt. Anytime Return is pressed on an empty line, you see this prompt. Enter ? and press Return to display:

Options:

A: Abort message
C: Continue message
D: Delete line
E: Edit line
H: Additional help
I: Insert line
L: List message
N: Section names
P: Preview message
R: Replace line
S: Store message

Subcommand: S

Each item does what its title indicates. A user can press *H* from here for more information. All the leave message options are covered thoroughly in Chapter 7 in the section titled, *Function 9 - Leave a message*.

Select *S* to Store message and press Return. This displays the section number prompt.

Sections:

0: [RWUD] * E-Mail *
1: [RWUD] General

Which section? 1

16 section numbers can be defined, each capable of storing messages. For now, enter *1* and press Return. This places the

message in the General section. The following prompt:

Msg #1 stored in Sec: 1 - General

displays the message number and where the message is stored.

When the main menu prompt appears, you are free to continue. Select *E* to End this call.

At the Local Menu select Local BBS Log-in and sign in with the Sysop account. After the caller statistics scroll by the following appears:

```
You have SYSOP privileges
1 new message(s) in system
```

```
Checking for messages...
```

```
Msg: #1  Sec: 1 - General
      02-OCT-87  09:33 AM
Subj: Test
From: John Doe
To: SYSOP
```

```
These message(s) have been
marked for your retrieval
```

```
System contains 1 msgs (1-1)
```

The first line is self-explanatory, any user with Sysop privileges is so notified. The next line informs you how many new messages have been entered since you last logged on.

The third line appears only for Guests or Members. **BBS-PC!** does not check to see if a new user has messages waiting.

If any messages addressed to you, the message headers appear. The next three lines inform you these messages are marked for you and

then shows the active message count in the system with the low and high message numbers.

From the main menu prompt enter *R* to Read messages. At the *Subcommand* prompt enter *?* to display:

Options:

A: Abort command
F: Forward multiple
I: Individual messages
M: Marked messages
N: New messages
R: Reverse multiple
S: Search category
T: Follow threads

Subcommand: *n*

Novices see this menu automatically. Select *N* since most Sysops read all the new messages. Users who are interested in just their messages can select *M* to read only those messages which scrolled by when logging on. These are known as marked messages. For this example, regardless of which option you entered, the following appears:

Msg: #1 Sec: 1 - General
02-OCT-87 09:33 AM
Subj: Test
From: John Doe
To: SYSOP

This is a test message to the Sysop.

(UA RE Q): *?*

Options:

C : Continue
M : Mark message
NS: No stopping

Q : Quit
R : Read message
RE: Reply
RP: Read previous
RR: Read replies
RT: Read thread
UA: Use address

(UA RE Q): re

From the main menu prompt the commands *RN* or *RM* can be entered to accomplish the same thing without having to view the other options.

Enter *RE* and press Return. You immediately see the prompt to enter the first line of a new message, the *To* and *Subject* fields are skipped. When you reply to a message with the *RE* command the message is automatically addressed to the sender of message, using the same subject. This starts what is known as a thread, which is covered in the next section.

Enter a couple of lines and press Return on a blank line. At the *Subcommand* prompt press *S* and then Return. Notice you weren't prompted to enter a section number. Unless you specifically store to a different section number, a message reply is stored with the same section number as the message to which you replied.

After the message is saved the original message header appears again. If you pressed *RN* to read the new messages, you may press Return to view the message you stored.

All the read message options are covered thoroughly in Chapter 7 in the section titled *Function 11 - Read messages*. This section only covers the basics, to familiarize you with the overall operation of **BBS-PC!**'s message system.

As an experiment, exit the system and log back in. Notice the message count increased but you were not flagged to read any new

messages. **BBS-PC!** keeps track of the highest message number a user reads and stores it with the user's record. When the user calls back, **BBS-PC!** searches for messages which have numbers greater than your highest message read.

MESSAGE THREADS

Suppose you call a BBS and read the new messages in a system. You see messages appear later which are replies to another message, but they aren't in any type of order. This is frustrating, because if all those messages were grouped together you would probably be able to remember what everyone is discussing.

BBS-PC! understands that frustration and provides message threading. A message thread starts when someone replies to an existing message with the *RE* command. If another user replies to *that* message, it too becomes part of the thread. If someone else replies to either the original message or one of the replies, it's added to the thread.

To read message threads, type *RT* from the main menu. A prompt requests the starting message number. Most users will press *N* for Read Threaded New.

The new messages start displaying. If one of the messages has a reply, it's shown next. As long as replies to the original message or subsequent messages are found, they are shown in the order they were left. When no further replies are found, **BBS-PC!** shows the next newest message, and if that message has replies, they are shown. In addition, **BBS-PC!** keeps track of the threaded messages so they are only shown once. If the next highest message is part of a thread which you've read, it is skipped.

Sometimes you'll read a message which is a continuation of a thread you read on a previous call. You can't seem to remember what the original message meant. From the read message prompt type *RP*. This reads the previous message in the thread. If the

previous message scrolled off the system or was deleted, the message *Message not a reply* appears.

After you read the previous reply, type *RR* to read the next reply in the thread. Normally this is the message from which you typed *RP*. If you select *RN* to read new messages, type *RT* at anytime to read an entire thread from the beginning.

When a user reads message threads, **BBS-PC!** keeps track of the highest message read counter differently. Instead of the highest message number read in the system updating the user's high message counter, the low message thread numbers are used. As each new thread is read the counter increases to the point where it includes the highest message in the system. As long as the counter doesn't reach the highest message, a user may disconnect and call again and read the unread message threads.

If your system has a number of message sections, a user can easily reach the highest message, or close to the highest message in the system. In which case, there may not be any "new" messages found in another section after they call back.

BBS-PC! does not force you to always read threaded messages, it is an option that makes using the message base easier. Messages can be read in message number order with the *RF* and *RN* commands. Type *RR* to read messages in reverse order.

LEAVING MESSAGES FORMATTED AND UNFORMATTED

BBS-PC!'s messages can appear much like the text files. That is, messages can be formatted automatically to the caller's screen width when read, or left unformatted to appear exactly as entered.

Below is an example of a formatted message entered by a user with a screen width of 40 columns.

1: This is a test message to the Sysop.
2: BBS-PC! has a very flexible message
3: system that allows new and experienced
4: users alike a means to communicate
5: easily.

Here is the same message a user sees with a screen display of 65.

Msg: #1 Sec: 1 - General
02-OCT-87 09:33 AM
Subj: Test
From: John Doe
To: SYSOP (X)

This is a test message to the Sysop. BBS-PC! has a very
flexible message system that allows new and experienced users
alike a means to communicate easily.

All lines are formatted until a blank line or the end of the
message is reached. To insert a blank line, enter a (.) period
at the beginning of a line and press Return, or press the space
bar and then press Return.

BBS-PC! normally stores messages so they are formatted. To store
an unformatted message, type *SU* when the *Subcommand* prompt
appears from the leave message options.

In instances when you only want portions of a message to be
unformatted you can precede the line with a (.) period, space or
tab.

For example:

```
1: .*****
2: .* For Sale *
3: .*****
4: .
5: One Cray super computer. Asking
6: $500 or best offer. No software
7: included.
```

Since you want the box to appear as you entered it, those three lines are preceded with a (.) period. When your users read the message, they'll see something similar to below:

```
*****
* For Sale *
*****
```

One Cray super computer. Asking \$500 or best offer. No software included.

Notice the first three lines appear as they did originally while the body of the message formatted to the caller's screen width.

Below is an example of the same message without the (.) periods to keep the first three lines unformatted.

```
***** * For Sale * *****
```

One Cray super computer. Asking \$500 or best offer. No software included.

While this really doesn't look bad, there are other instances when formatting can cause the message to be almost unreadable. A good example is a message with columns of figures.

When the entire message needs to be formatted, use the *SU* option,

otherwise it is better to use the (.) period to force unformatting and allow **BBS-PC!** to format the rest of the message.

Don't enter (.) periods at the beginning of a line and then store the message as unformatted (*SU*), or the periods appear as part of the message.

MAINTAINING THE MESSAGE BASE

BBS-PC! requires little message system maintenance. One of its features is to allow you to configure the system for the maximum number of messages. The default value is 200. Once that value is reached, the next message a user enters automatically deletes the lowest unlocked message in the system.

When storing messages, the Sysop can optionally lock a message so it cannot be removed either by the system or another user. Locked messages appear with an (*L*) next to the message number.

Some messages, such as welcome messages or un-read messages, should be locked since you would not want to have to re-enter them constantly.

When a Sysop reads messages, the additional prompt (*D F*) appears. *D* is used to delete a message and *F* forwards a message.

A message can be forwarded for any number of reasons. Sometimes a user addresses a message to the wrong person, it is stored in the wrong section, etc.. Press *F* to display:

To:
Subject:
Section?
Unformatted?
Private?
Locked?

To: The person to whom the message is addressed. Press Return

to accept the current name.

Subject: Enter a new message subject or press Return to accept the current subject.

Section: An optional section number. Press Return to use the same section number.

Unformatted: Prompts *Y/N* to store the message as unformatted. The default is *N* to store a formatted message.

Private: Prompts *Y/N* to store the message as private if the section number has the private message flag set. The default is *N*. Refer to Chapter 7 under the section titled *Function 30 - Define Section Names*, about private message flags.

Locked: Prompts *Y/N* to lock the message to prevent it from scrolling off the system until the Sysop deletes the message. The default is *N*.

In addition to delete and forward, two "hidden" commands are available, *E* and *EM*. Press *E* to edit the user's record from whom the message is addressed. This permits the Sysop to easily make changes to a user's record immediately. If a user requests membership, type *EM* and the user becomes a member.

FILE TRANSFERS

The file transfer area of many BBS's is often the most used feature of a system. Depending on your disk capacity, **BBS-PC!** can catalog as many as 9999 file entries. The default value is 100 and can be changed through the Maintenance module. See Chapter 7 under the section titled *Function 34 - System Defaults*, for more information.

The words upload, download and protocol are a few of the phrases employed casually by users when discussing file transfers. These and other terms are examined shortly.

The heart of **BBS-PC!**'s file transfers is the file catalog. The file catalog is the middle man between your users and the physical files on your floppy disks or hard drive.

The same 16 section numbers used to keep track of the messages are also used to catalog the files. If you have section number 6 for IBM messages, the same section number should be used for IBM files.

DIRECTORY NUMBERS

If you have many files, 16 section numbers may not be enough, so **BBS-PC!** supports directory numbers for each section. The directory numbers range from 0-255, with 0 as the default directory number for an uploaded file.

Don't confuse directory numbers with the physical directories of your drives. These are internal to the file catalog and are used to segregate types of files common to a particular section number.

Suppose you defined section number 8 for Amiga messages and files. However, due to the large volume of files, you need a way to separate your files. Some users only want to see Amiga IFF pictures and care nothing about games or other files.

This is where directory numbers become invaluable. You can place all the Amiga pictures in Directory/1, games in Directory/2, utilities in Directory/3 and so forth.

Of course, without seeing how directory numbers work you're going to have a hard time understanding them. For the next example you need a sample file in the drive/path you specified when you ran **BBSINIT -U**. Take a moment to exit **BBS-PC!** and copy a file to that location. When finished, enter **BBS-PC!** and select Local BBS Log-in.

Log-in as Sysop and select the File menu option from the main menu. Press ? to see the options.

File Func (? for menu): ?

```
+-----FILE MENU-----+
! B: Browse files one at a time      !
! C: Display file catalog             !
! D: Download a file                  !
! E: Exit back to main menu          !
! H: Help with downloading files     !
! I: Information about files          !
! K: Kill a file you uploaded        !
! L: Upload a file locally            !
! M: Mask out unwanted sections      !
! N: Catalog of new files only        !
! R: Read a text file (formatted)    !
! S: Search file descriptions         !
! U: Upload a new file                !
! *: Download direct from disk       !
! $: Upload direct to disk           !
+-----+

```

File Func (? for menu): l

Choose *L* for Upload a file locally. This option allows you to enter your own files directly into the file catalog, one at a time. Only a Sysop can see and use this menu item, to others, it won't appear on the menu. The first prompt appears:

File name: menu.txt

This prompts for filename which appears in the file catalog. Enter the filename and press Return. Filename entries can be no more than 8 characters, followed with (optionally) a (.) period and 3 more characters, like *FILENAME.TXT*. If pseudo filenames are allowed, the filenames may be 15 characters and include spaces, etc., without following the filename pattern in the

example above. Pseudo filenames are discussed in Chapter 7 in the section titled, *Function 30 - Define Section Names*. Please **DO NOT** precede the filename with a drive/path. The next prompt appears:

Disk file: menu.txt

This prompts for the filename which appears in the disk's directory. Press Return to use the same *Disk file* name as the *File name*. Note that the *File name* and *Disk file* names do not have to be the same. This is the basis for BBS-PC!'s pseudo filenames.

DO NOT precede the filename with a drive/path. BBS-PC! searches all the drive/paths specified in **BBSINIT -U**. If the file is not found a *File not found* error message appears. If you know the filename is correct, you may need to run **BBSINIT -U** and make sure your drive/paths are correct.

If the file is found, this prompt appears next:

Binary/Text? B

This designates the file type. Binary files can not be read from within BBS-PC! and must be downloaded. Text files can be downloaded or viewed online. Large text files can be classified as binary to prevent users from wasting a lot of system time viewing files.

If the file contains binary information but is designated as text, the user sees strange characters on the screen when the file is viewed online.

The next prompt requests the name of the person entering inserting the file catalog entry.

From:

Press Return to use the default name of *Sysop*, or enter another name. When a user uploads a file remotely, the user's name is automatically entered. The section number prompt now appears:

Sections:

0: [RWUD] * E-Mail *

1: [RWUD] General

Which section? 1

Any section number which is defined appears in the list. The file may be placed in any section number which displays a *U* within the braces. If a user only has upload access to one section, the prompt does not appear -- it defaults to that section number. Attempts to upload to a section number to which you have no access results in an *Access denied* message. The next prompt appears only with the local upload function:

Directory: 1

Unless you wish the file hidden from your regular users, enter a directory number other than 0. The reason for this is explained further.

The last prompt now appears:

Description (40 chars max)

[----5-----10---15---20---25---30---35-----]

Sample menus for BBS-PC!

Enter a brief description about the file, up to 40 characters can be entered. Press Return and the menu prompt appears. When a user uploads remotely, the file transfer begins at this point.

To enter a large number of files into the file catalog, refer to Chapter 10 under the section titled, *BBSFILE*.

A file uploaded by a user is automatically placed in Directory/0.

In **BBS-PC!**'s normal configuration, your regular users cannot download files from Directory/0, even if they have download access. This prevents someone from uploading a commercial program and letting your users download it - which is a criminal offense. Some states have strict laws concerning material available to users of BBS's. It's in your best interest to become familiar with these laws.

As long as a file is not in Directory/0, any user who has download privileges for that section may download any of the files in that section number. There are ways to limit users to specific directory numbers through the use of custom menus, which is discussed in Chapter 8.

There are several ways a user can display the file catalog. From the file menu press *C* and Return. The screen clears and displays:

Natural list of files - 08-OCT-87 09:55 AM

**MENU.TXT 08-OCT-87 10849-B Sample menus for BBS-PC!
1 File(s) listed**

The filename appears first with the date the catalog entry was entered. The filesize appears next with the letter *B* or *T* to distinguish binary files from text. The file description appears last. If more files are found, they appear below. **BBS-PC!** pauses at the end of each screen if there is a large listing.

The display catalog function shows all users the files in a catalog (except those in Directory/0) or files for a specific directory number. Type *C/I* and press Return. The screen clears and displays:

File list for directory 1 - 08-OCT-87 09:55 AM

**MENU.TXT 08-OCT-87 10849-B Sample menus for BBS-PC!
1 File(s) listed**

You expect this file to be shown since it was entered into Directory/1. Now display the files in Directory/2. Type C/2 and press Return to see:

File list for directory 2 - 08-OCT-87 09:55 AM

0 File(s) listed

Through the use of directory numbers you greatly extend the flexibility of a section number. By segregating types of files within a section number, you make it much easier for your users to view the files in which they are most interested.

When you type a menu command followed by a / (slash) you are entering a parameter. Many BBS-PC! functions support parameters and they are listed in Chapter 7. For now, you'll learn how to use the parameters to display the file catalog.

The print catalog function supports several parameters. You've practiced with the directory number, the others allow you to display the catalog listed in reverse order by age, display the catalog sorted by filename and wildmasks to display only files which match a filename pattern.

C/x: Displays the catalog by directory where *x* is the directory number.

C/A: Displays the catalog in aged order. Newest filenames appear first.

C/S: Displays the catalog sorted in alphabetical order by filename.

C ?.*: Displays only those files which fall into the pattern of the wildmask. The wildmask pattern does not correspond with the wildmasks supported by your particular operating system. Here are some examples for using wildmasks:

C D

C *.ARC

C ??A

C FILENAME.TXT

The first example displays the filenames which begin with the letter D.

The second displays the filenames which end with the file extension .ARC.

The third displays the filenames where the letter A is the third letter of the filename.

The fourth example looks for an exact filename.

Note that only one parameter can be used per function, with the exception of the wildmask. You cannot display the files in Directory/100 in sorted order, but you can display the file catalog for Directory/1 and only those files which end in .ARC (C/I *.ARC).

Your frequent downloaders will probably find option N, which displays new files, to be invaluable. This option displays only those files uploaded since their last call or files entered from a specific date. Enter:

N 10/01/87

to display all files uploaded since October 1, 1987.

Another popular file catalog function is Browse. Browse supports the same parameters used with the display catalog function, the difference is in what appears. From the file menu prompt, enter

B and press Return.

```
File: MENU.TXT 10849-B
      08-OCT-87 (L)
Dir: 1 Sec: 1 - General
From: Sysop
Acc: 0
```

Sample menus for BBS-PC!

(D R Q) (K M): ?

Notice that almost the same information appears as display catalog when you use the Browse function. There are a couple of differences, however. The directory number where each file is located along with its section name, appears. The person's name who uploaded the file appears. The number of times the file has been read (*Acc*), or downloaded, is also shown.

The major difference is each catalog entry pauses before displaying the next filename. From this prompt you have the following options:

Options:

C: Continue: Displays the next filename, same as Return.
D: Download: Downloads file with the user's default protocol.
R: Read: Types the file to screen, unless it's a binary file.
Q: Quit: Aborts the Browse function and returns to menu prompt.

(D R Q) (K M):

The second set of options, (*K M*), are available to the Sysop or someone with Sysop access. *k* deletes the file catalog entry and the actual file on disk, if it was uploaded remotely. Files you upload locally and remove from the catalog leave the actual disk file untouched. *M* moves the file catalog entry to another section number, directory number, and includes other options. They are:

File name:

Section?

Directory?

New description?

File moved

File name: A new filename, optional. Press Return to use the same filename.

Section: Places the catalog entry in another section number. Press Return to use the same section number.

Directory: Moves the catalog entry into a specific directory number. Press Return to use the same section number. Files uploaded remotely automatically default to Directory/0. Files in Directory/0 cannot be downloaded. You use this option to place the catalog entry into another directory number other than 0.

New description: Respond with Y/N to change file description. The default is N.

After this prompt the message, *File moved* appears. This means the changes you made were successful. In addition, the catalog entry's file date is updated to the time the file is moved. This is useful when moving files out of Directory/0 for general downloading. If the file was uploaded days ago and the file date not updated, the function to display the newest files could not work properly.

When you move a file within the file catalog, only the file catalog entry is moved, not the file on disk. You can use the 16 section numbers and 16 upload/download paths to keep the physical files segregated from the section numbers, but you must copy the files to the correct drive/path yourself. BBS-PC! does not physically move files on the disk.

BBS-PC! places new uploads in the first drive/path entered from

BBSINIT -U and searches all the drive/paths specified, so the actual file can be located in any of those drive/paths. The 16 drive/paths are a convenience for you, **BBS-PC!** makes no distinction between the section numbers and 16 drive/paths.

In addition to the display and browse catalog functions, you may search for files based on the file description. From the file menu prompt type *S* and press Return.

Search string: menu

You are prompted to enter a search string. Partial strings are acceptable, character case does not matter. The search string applies both to the file description and the filename. Enter a sample string based on the file description you entered.

Natural list of files - 08-OCT-87 09:55 AM

**MENU.TXT 08-OCT-87 10849-B Sample menus for BBS-PC!
1 File(s) listed**

If several files match the search description, they also appear.

With the basics of the file catalog covered, you are ready to learn more about the actual file transfers. This is known as uploading and downloading.

While these terms may be confusing they are actually quite simple: Uploading a file is a function where a remote user sends you a text or binary file through the use of a file transfer protocol. Downloading is just the opposite; you send the file and they receive.

A file transfer protocol is like a language used to agree on how a file should be transferred. The nice thing about transfer protocols is they work regardless of whether or not both computers are the same. File transfer protocols send data in what is known as blocks. That is, the file is sent to the other

system one piece (block) at a time. Each block is checked for integrity and if an error is detected, the receiving system requests the host system to re-send the block.

As long as both systems agree on the same file transfer protocol, most transfers are error free and extremely simple to initiate.

Below is a list of the file transfer protocols **BBS-PC!** uses and some of their features.

FILE TRANSFER PROTOCOLS

ASCII Text

Kermit

Xmodem

Xmodem-CRC

Ymodem-Batch

Ymodem

Zmodem

The protocols are listed in roughly the same order as their accuracy (error-detection) and transfer speed.

If your telecommunications program supports Ymodem or Zmodem, select one of those, for they are the fastest and most reliable.

With the exception of **ASCII Text**, all other protocols use some form of error-checking. Error-checking is a feature whereby the file transfer protocol tries to monitor the transfer and compensate for poor line quality or spurious line noise which can scramble data. When an error is detected the receiving system asks the host system to re-send the block.

ASCII Text: This is a very basic file transfer protocol. When a binary file is sent, it is converted to its HEX values and displayed on the screen. This is the only protocol where you will see the data actually being transferred. No error checking is supported. Before you download a file using this protocol, open a capture buffer and make sure it is closed. That is, the

capture buffer is available to store the data to disk, but the actual buffer is closed to prevent unwanted data from entering the buffer.

When you give the download command to **BBS-PC!**, it sends a command (decimal 18) most telecommunications programs recognize to open your capture buffer to store the HEX display. When the transfer is complete, **BBS-PC!** closes the capture buffer by sending a decimal 20. In this manner only the HEX codes related to the downloaded file are in the capture buffer. This feature only works when this protocol is selected.

The receiving system should have a program to take the capture buffer file and convert the HEX codes to an executable program.

If the file catalog entry is designated as text, the buffer is opened as above, only the normal ASCII text appears on the screen. No HEX conversion is necessary.

Kermit: This is the standard transfer protocols used by mainframes for many years now. **BBS-PC!** uses the standard implementation of Kermit. If a user calls in at 7E1 and downloads a binary file, binary quoting is used to transfer the file. This normally increases the transfer time two-fold. If possible, the user should call at 8N1 as **BBS-PC!** does not adjust communications protocol with Kermit.

Since there are a number of different implementations of Kermit, below is a list of the default values used by **BBS-PC!:**

Packet Length (bytes)	94
Pad Length (bytes)	0
Pad Character	000
Time-out (secs)	10
EOL Character (octal)	015
Quoting Character (octal)	043
Start of Packet (octal)	001

Kermit automatically sends the filename along with the filesize. The receiving system need only select file receive, **BBS-PC!** and **Kermit** handles the rest.

Xmodem: This is the protocol originally written by Ward Christensen and in use by almost every type of personal computer. It is the same protocol as **Xmodem-CRC**, only it uses Checksum error correction instead of CRC, which is not as reliable.

Xmodem-CRC: This has long been a standard with its outstanding error-detection. It's biggest drawback is it transfers data in 128 byte blocks. Following the protocol description, **BBS-PC!** switches communications protocol from 7E1 to 8N1 when transferring files. As 99% of the commercial and public domain telecommunications programs follow this standard, your users should have no problems. Micro-Systems Software has been using this protocol for many years without problems. With the exceptions of ASCII Text and Kermit, all the protocols used in **BBS-PC!** switch communications protocol the same as **Xmodem-CRC**.

Ymodem-Batch: This is the same protocol as **Ymodem**, only the filename is not entered at the receiving end of the system. **Ymodem-Batch** sends the filename along with the filesize. The receiving system only selects file receive. When someone uses **Ymodem-Batch** to upload a file, the only prompts which appear are the section number and file description. **BBS-PC!** enters the filename in the file catalog.

Ymodem: This is basically **Xmodem-CRC** with 1024 byte blocks. The advantage is obvious: more data is sent per block, thus less blocks to error-check which is time consuming. The only problem is when line quality is poor, 128 byte blocks take less time to re-send.

Zmodem: Currently, this is the fastest file transfer protocol in the public domain. A file is normally sent in 1024 byte blocks. This value changes based on system performance and is automatically handled by **Zmodem**.

The reason for Zmodem's outstanding performance is the way it detects errors. With the exception of ASCII Text, the other protocols available in **BBS-PC!** send one block of information and wait until the remote system receives it, acknowledges the block and then sends a command to continue with the next block.

Imagine a series of stop signs at each city block where you must constantly stop and start. While you eventually get there, it's slow going.

Zmodem uses continuous data-streaming; it does not wait for an OK from the remote system before sending the next block. In effect, Zmodem ignores the stop signs until caught (an error is detected). When an error is detected, the receiving system sends a request to the host to re-send the data from where the error occurred. While several kilobytes of data may be lost due to the delay in receiving the error message, the overall transfer rate is far superior and outweighs an occasional bad block.

This protocol proves useful when calling through a packet network. Packet networks normally experience long delays using the traditional file transfer protocols, since it takes several seconds before an acknowledgment is received from the remote system. In the same time, Zmodem can send two or more blocks of data.

Always make sure your users initiate the file transfer at **BBS-PC!**'s end first, and then complete the transfer sequence at their end. Their telecommunications program should provide the necessary information to transfer files.

Unsuccessful uploads are automatically deleted. Uploads count towards the upload/download ratio selected through the system defaults function. If a user tries to upload to a section where he doesn't have upload privileges, the error message *Access denied* appears.

When a user uploads a file the user can view it in Directory/() until the next calendar day, or until a Sysop moves the file to another directory number. This allows them to kill the file, update it with a newer version or download it to verify its integrity.

At this time, **BBS-PC!** can only batch receive and send a file at a time. Kermit, Ymodem-Batch and Zmodem are all batch protocols.

If the upload disk isn't present (the first path entered with **BBSINIT -U**), a *File exists or improper name* message appears. This may also happen if the file doesn't meet the filename restriction of no more than 8 characters, followed with (optionally) a (.) period and 3 more characters. If the filename restriction is a problem, view the information concerned with pseudo filenames under *Function 30 - Define Section Names*, in Chapter 7.

BBS-PC! permits a user to download a file without using the Browse function. The download function is item *D* on the file menu. You can press *D* and enter the filename at the prompt or type *D filename.txt*.

If you know the exact name of the file you wish to download, it is much easier to use this function instead of Browsing for the file and then selecting *D* to download. In addition, the download function allows you to temporarily change the file transfer protocol for that particular file. Some examples appear below:

D/T filename.arc - downloads with ASCII text protocol.
D/K filename.arc - downloads with Kermit protocol.
D/X filename.arc - downloads with Xmodem protocol.
D/C filename.arc - downloads with Xmodem-CRC protocol.
D/B filename.arc - downloads with Ymodem-Batch protocol.
D/Y filename.arc - downloads with Ymodem protocol.
D/Z filename.arc - downloads with Zmodem protocol.

The protocol you select is in effect only for that file. The

same parameters also work when a user uploads a file. To permanently change the default file transfer protocol, change your user options with option *O* from the main menu. You may not change your protocol in this manner with the Browse option.

FILE PADDING

With the exception of Xmodem, Xmodem-CRC and Ymodem, all the other protocols in **BBS-PC!** transfer the file using the exact file length.

The three protocols listed above pad a file to an even multiple based on the block size. Both Xmodem and Xmodem-CRC pad the file to an even multiple of 128 bytes while Ymodem uses 1024 bytes.

Some computers, the Commodore Amiga for instance, are very particular about the file size and often fail to execute an object file if unwanted padding is detected.

If a user of a Commodore Amiga, or other computer which is susceptible to the same problems, complains of the unsuccessful transfer of an executable file, have the user select another protocol.

Many of the telecommunications programs for these computers can automatically remove the extra padding placed there by the file transfer protocol. There are also utilities available which accomplish the same task. If you have a download section for a computer of this type, expect your users to have problems of this nature.

Another likely question deals with archived files, known as ARC files as their filename extensions always end in *.arc*.

An ARC file is a file or collection of files stored using a file compression packing technique to create a smaller file. The smaller file size reduces transfer times and long-distance phone bills. ARC utilities are in use by most types of computers. You

can expect questions on how to use ARC and extracting individual member files from an ARC file. These utilities, along with extensive help files or documentation, are available on most electronic bulletin boards.

The remainder of this chapter covers useful information about some of the modules in **BBS-PC!** plus miscellaneous information. All of the functions available in each of the modules is covered thoroughly in Chapter 7.

TERMINAL MODULE

This module permits **BBS-PC!** to act as a basic terminal program. You can call another system or call into **BBS-PC!** then out to another system via this module.

The time-out delay for dialing is 30 seconds and can be increased if you add a series of (~) tildes after the dial suffix. The dial suffix is found under Modem settings in the Maintenance module.

When connected to a system, press ALT-C to disconnect. You are returned to the Terminal module prompt immediately after.

MAINTENANCE MODULE

This module is used to validate your guests to make them members, reset bulletin flags when you update a section bulletin and much more.

Be aware that anyone who has access to your computer can log into this module and have full Sysop privileges. Chapter 8 provides information on how to password each of these menu items to prevent anyone from damaging your system locally.

SPECIAL CONTROL CHARACTERS

There are six special characters **BBS-PC!** recognizes:

Esc: Clears to the beginning of the line. This key works on all prompts and in the message base.

Ctrl-C: This control character is always ignored by **BBS-PC!**. This is a favorite command used by so-called "hackers" to try and crash **BBS-PC!** to get to your system's DOS.

Ctrl-S: Pauses a display and is known as XOFF.

Ctrl-Q: Continues a display paused with Ctrl-S. Also known as XON.

Ctrl-P: Aborts a display. When a user calls remotely this command is executed immediately, even if other keyboard commands have been queued. A good example is if a user presses Return several times to read several messages without pausing, press Ctrl-P to halt the message read instantly. Locally, this function works similarly, but can not abort until the queued commands are executed.

Ctrl-X: Works the same as Esc.

MISCELLANEOUS INFORMATION

Novices vs Expert Users

When a function is selected which has an option menu it is displayed automatically to novices. When a novice switches from one menu to another, the new menu automatically appears.

Section Bulletins

BBS-PC! keeps track of which section bulletins a user reads by setting a flag so that once a bulletin is read, it is not displayed again until the Sysop resets that bulletin mask.

However, if a Ctrl-P is pressed to abort a bulletin, the user's

bulletin flag isn't set and with the next call the bulletin is again displayed.

Chaining Commands

BBS-PC! allows you to chain commands together by separating each command with a (;) semi-colon. For example, if you enter *f;b;e* from the menus used by **BBS-PC!** then the File menu is selected, then the Browse command. Within the Browse command you may choose any of the Browse options available. After you exit Browse, you are returned to the Main menu automatically.

This ability is extremely useful for users who call your system using unattended operation. A script file can be made in this way since there is less of a chance for line noise to interfere with the execution of a script file.

Barring 300 Baud Callers

Some systems do not allow 300 baud callers on their systems since the length of time when a file is transferred keeps the system occupied for a long time.

To prevent callers of a particular baud rate from accessing your system, select the Modem settings command from the Maintenance module and change the 300 result code to *NOT USED*. Since your modem won't return that result code at 300 baud, the remote user can connect to your system, but **BBS-PC!** won't switch to 300 baud since the result code is not correct. Of course, make sure that your default baud rate is not set to 300.

File Sizes

BBS-PC! dynamically allocates file space for messages, the caller log, user information and the file catalog. This means that once a file reaches a certain size, it never decreases. However, **BBS-PC!** does not increase the file size until it is absolutely necessary. Deleted records in a file are re-used by the system.

This results in less file maintenance by the Sysop.

When You Need BBSFIX

BBSFIX is a utility to repair corrupted datafiles so **BBS-PC!** can operate properly. Datafiles can become corrupted in a variety of ways. The most likely cause is re-booting your machine without first selecting the Exit program to DOS option.

Other reasons include faulty disk media, loss of power and the occasional hardware problem.

If your system has a file which is executed immediately upon booting, add the following command prior to running **BBS-PC!:**

BBSFIX -G:Y -F:N

This runs **BBSFIX**, does a general rebuild on all files and does not force the rebuild. Chapter 10 contains a full explanation on the use of **BBSFIX** and its options. For 90% of system problems, the above command is sufficient for use with **BBS-PC!** because the datafiles are not touched unless it is determined that there is a problem.

SYSOP FUNCTION KEYS

F1 - Press this key to force a Chat interrupt.

F2 - Press this key to automatically disconnect a user. This is sometimes referred to as a "twit" key.

F3 - Each time this key is pressed, the users allotted time on the system temporarily increases by 15 minutes.

F4 - Makes the user who is online a member automatically.

F5 - Temporarily disables the upload/download ratio so a user can download as many files as desired within the time limit.

F9 - Blanks the screen. Press F9 again or any other key to re-display the screen.

F10 - Redirects all console output to a file or device. The filename can be any legal filename. Devices include: LPT1: for the IBM and PAR: for the Amiga -- to send output to the printer. Press F10 again to terminate output. If a file was opened, it is closed.

EXPANDING YOUR SYSTEM

Practice what you've learned. Once you're comfortable with **BBS-PC!**, read the next chapters for instructions on how to add new and more powerful features.

CHAPTER 7 BBS-PC! FUNCTIONS

Every menu item is actually a **BBS-PC!** function. This chapter covers each function in depth. The next chapter explains how to menus are constructed. These two chapters are closely related to each other; it is better if you understand how the functions work before creating menus to access them.

Each function is shown with its number and a brief description as a section headline within this chapter. Then, an example, a parameters list (if any) and a detailed description completes each section.

All examples use the commands found on the sample menus.

Function 0 - User Statistics

Y: Show your caller statistics

Parameters: N/A

Description: The following appears automatically whenever a user logs onto the system:

```
Last call : 09-OCT-87
Access    : 0123
Privilege : 10
Time limit: 60
D/U ratio : 10:1
High msg  : 1
Calls     : 10
Messages  : 1
Downloads : 1
Uploads   : 0
```

In addition, the user may view this information at anytime by selecting a menu item which calls this function number.

Last call: The date which the user last called the system.

Access: A list of section numbers to which the user has some type of privileges.

Privilege: User's privilege level. It ranges from 0-255.

Time limit: The time allotted the user -- per day or call, which depends on your values in Function 34 (*System Defaults*).

D/U ratio: The download/upload ratio. A value of 10:1 requires 1 upload for every 10 downloads. If it's Disabled, there are no upload requirements.

High msg: The highest message number the user has read in the system.

Calls: The user's number of calls to the system.

Messages: The number of messages the user has written.

Downloads: The number of files the user has downloaded.

Uploads: The number of files the user has uploaded.

This information is constantly updated by **BBS-PC!** to permit the user to display up to date statistics.

Function 1 - Section Names

N: Section names

Parameters: N/A

Description: This function displays a list of section names to which the user has access:

Sections:

0: [RW--] Private Mail
1: [RWUD] General
2: [RWUD] Local Interest
3: [RWUD] IBM-PC/XT/AT
5: [RWUD] Tandy 2000
8: [RWUD] Commodore Amiga
C: [RWU-] Comments
E: [--UD] BBS-PC Sysops

If a section number is not defined, it is not displayed. Sixteen section numbers are available 0-9 and A-F. Four types of access are defined for each section (*RWUD*):

R - Read messages in section

W - Write messages in section

U - Upload files to section

D - Download files from section

If a (-) hyphen appears where a flag should be, the user does not have that type of access to the section. Examine the examples below:

0: [RW--] Private Mail
C: [-W--] Comments
E: [--UD] BBS-PC Sysops

The user has both Read and Write privileges to section 0, but not Upload or Download. Section C only permits message Writes and Section E allows file transfers only. All other sections displayed permit all four types of access.

These are sample access flags for just one user. **BBS-PC!** allows the Sysop to define a specific type of access for each user or groups of users. The actual extent to which the flags allow

access is determined by the Sysop and the menus.

Function 2 - Change Section Mask

M: Mask out unwanted sections

Parameters: Section numbers and !, +, -

Description: This function displays all the user's access to the system.

Sections:

0: [RW--] Private Mail
1: [RWUD] General
2: [RWUD] Local Interest
3: [RWUD] IBM-PC/XT/AT
5: [RWUD] Tandy 2000
8: [RWUD] Commodore Amiga
C: [RWU-] Comments
E: [--UD] BBS-PC Sysops

BBS-PC! allows users to voluntarily mask themselves out of a section. This is useful if messages from several sections are read together and the user does not want to view messages from one or more sections. When this function is selected this prompt appears:

Enter section(s):

The section numbers to which the user wants access are entered. For example:

Enter section(s): 013CE

To display:

Sections:

0: [RW--] Private Mail
1: [RWUD] General
2: [----] Local Interest
3: [RWUD] IBM-PC/XT/AT
5: [----] Tandy 2000
8: [----] Commodore Amiga
C: [RWU-] Comments
E: [--UD] BBS-PC Sysops

Only those section numbers entered are masked in. All other sections to which the user has access are removed. The changes are stored in the user's record so the next time the user calls the system the changes do not have to be entered again.

When a section is masked out, it includes all allowed access to that section. To mask in all sections, choose this function and press Return. A user can never mask themselves into a section that their user record does not permit. It is always the Sysop who has final control over what a user may see or do.

Whenever this function is selected, the section numbers must be re-entered or all the sections are masked in automatically.

You may use the **!**, **+** or **-** in conjunction with section numbers to perform more than one masking operation.

Enter section(s): +!-AF

Enter section(s): +123-0BE

The first example adds all the permitted section numbers (**+****!**) and removes section numbers A and F (**-AF**).

The second adds section numbers 1, 2 and 3 (**+****123**) and masks out section numbers 0, B and E (**0BE**).

Function 3 - Register/Add to Membership File

A: Add yourself to user files

Parameter: N/A

Description: A new user selects this function to become a guest in the system. Once they register, the Sysop decides whether or not to validate the user and make them a member. This function saves the Sysop valuable time because instead of entering the information provided by the user, they enter it themselves and all the Sysop must do is verify the entry.

The REGISTER.TXT file first displays to explain the type of information required for membership. When the text file finishes, the first prompt appears:

Your name: CHRIS DEBRACY
City, State: WPB, FL
Phone (XXX-XXX-XXXX): 305-790-0770
Password: MSS

The first four prompts are self-explanatory. The next prompt defines the type of terminal you're using:

Terminals:
0: Standard
1: Commodore Amiga
2: IBM

Terminal type: 0

All the terminal definitions entered with Function 31 (*Terminal Defaults*) appear. The user selects the terminal name most likely to satisfy their needs. Each user may change individual items in their terminal definition, but this satisfies 90% of your users.

The next prompt is the default file transfer protocol:

Protocols:

T: ASCII Text

X: XMODEM

C: XMODEM-CRC

Y: YMODEM

B: YMODEM-Batch

K: Kermit

Z: Zmodem

U/D protocol: **Z**

The default protocol is used for both uploading and downloading and can be changed later. The user's selections are displayed once more:

Chris Debracy

WPB, FL

305-790-0770

MSS

Standard

Zmodem

Is this correct (Y/N)? Y

If everything is correct, select *Y* to display:

Chris Debracy added to user file

Select *N* to start from the beginning. Once this function is completed, the user may never select it again to make changes to their user record; the error message *User already in file* appears. Use Function 4 (*Change/Examine User Record*) to make any necessary changes.

Function 4 - Change/Examine User Record

O: View/edit your user options

Parameters: N/A

Description: This function allows the user to change many of the items entered when they applied for membership. Additional items are available to permit the user to define their page size, clear screen and backspace codes and other information.

Choose this function to display:

Chris Debracy
WPB, FL
305-790-0770

```
1: Terminal   : Standard
2: Sections   : 0123
3: Password   : MSS
4: Status     : Novice
5: Protocol   : Zmodem
6: CLS codes  : 12 0 0 0
7: BS codes   : 8 0 0
8: Page size  : 80 x 24
9: Linefeeds  : Yes
0: NULS       : 0
```

Enter line to change:

1: Terminal: This displays the same terminal definition prompt found in Function 3 (*Register/Add To Membership File*).

2: Sections: This displays the same information and accepts the same commands as Function 2 (*Change Section Mask*).

3: Password: Prompts for a new password. The password is not echoed back as when you enter your password when logging on the

system. Make sure no one sees your password.

4: Status: Select this option to display:

Expert user (Y/N):

Enter Y to prevent new menus and option menus from displaying automatically. Of course, if the menu is configured to appear regardless of the user's status, this won't make any difference. See Chapter 8 for further information on how menus operate.

5: Protocol: This option displays the same protocol prompt as Function 3 (*Register/Add To Membership File*).

6: CLS codes: Four codes can be entered which **BBS-PC!** sends to the user when a CLS (clear screen) code is required. Codes are entered in decimal.

CLS code1: 12

CLS code2: 0

CLS code3: 0

CLS code4: 0

Press Return at any of the prompts to use the default value. Most terminals require a decimal 12. A VT-100 terminal requires the following CLS codes:

27 91 32 74

7: BS codes: These are the three codes which **BBS-PC!** sends to a user when a BS (backspace) code is required. Codes are entered in decimal. Press Return at any of the prompts to use the default value. Most terminals require a decimal 8 for a backspace. If your terminal has problems with a destructive backspace, try backspace codes of 8 32 8.

8: Page size: This is the value of the columns and rows **BBS-PC!** displays to the user. Formatted text files and bulletins

automatically adjust to the values you enter. Select this option to display:

Page width: The width in columns. The minimum value is 32 columns and the maximum is 132 columns. Press Return for the default.

Page len: The number of rows displayed before a *More* prompt appears. The value can range from 0-255. A value of 0 automatically skips past *More* prompts. Press Return for the default.

9: Linefeeds: Determines whether **BBS-PC!** sends CR + LF (carriage return plus line feeds) or a CR only at the end of each line. The default value is *Yes* to send both CR and LF. Most users do not need to change this value.

0: NULS: This value represents the number of null characters sent at the end of each line. The default value is 0 and can be as high as 50. Nulls are normally used by systems which are printing while online. If the printer cannot keep up with normal output and data is being lost, adding nulls to the end of each line can create a long enough delay to allow the printer to keep up with the system.

Function 5 - Print Caller Log

U: Display recent callers

Parameters: N/A

Description: This function displays the recent callers to the system. Which callers and how many are displayed depends on the values entered in Function 34 (*System Defaults*).

#56894 - Node #2 2400:8N1

Chris Debracy

West Palm Beach, FL

In : 12:40 PM 13-OCT-87

Out:

Sum:

#56884 - Node #1 1200:8N1

Jane Doe

Queensland, Australia

In : 09:37 AM 13-OCT-87

Out: 10:14 AM <Time Limit>

Sum: 4 Downloads

#56876 - Node #1 2400:8N1

Jonathan Dover

San Antonio, TX

In : 07:32 AM 13-OCT-87

Out: 07:39 AM

Sum: 1 Message, 2 Downloads

The first line lists the caller number, the node they called into, their baud rate and communications parameters.

The second and third lines display the user's name and address.

The fourth and fifth lines list the time they called into the system and the time they exited. Occasionally an additional piece of information may appear next to the time out and are:

< Sleep Disconnect >: The user did not press a key for a period of several minutes. **BBS-PC!** automatically disconnects such users and posts this notice as part of the caller log.

< Time Limit >: The user stayed past the allowed time limit and **BBS-PC!** disconnected the user.

< Carrier Lost >: The user disconnected either voluntarily or

involuntarily. The cause for this could be anything from excessive line noise to childish behavior.

The fifth line is a brief summary of what the user did on the system. The number of messages the user wrote, files downloaded and uploaded appear on this line.

You may want to make sure this function is only available to members of the system. All too often people call to see who is on the system and then spend the next few days trying every password imaginable to gain access under another user's account.

Function 6 - Time On System

T: Time used during this call

Parameters: N/A

Description: Select this function to display:

Current: 02:34 PM 13-OCT-87

Logged : 02:32 PM

Elapsed: 00:03

28 minute(s) remaining

The first line lists the current time and date. The second displays the time the user logged onto the system. The third is the amount of time the user has spent on the system for this call. The last line shows the number of minutes the user has remaining on the system.

Users who are concerned with long-distance dialing costs will find this function invaluable.

Function 7 - Chat with Sysop**C: Chat with the SYSOP**

Parameters: N/A

Description: How this option works depends on whether Chat is ON or OFF from the Local Screen. If Chat is ON and this function selected, the following appears:

Paging SYSOP.....

As each dot appears, the local bell rings to alert the Sysop. The bell rings despite the local bell setting in Function 35 (*Node Defaults*). **BBS-PC!** determines that if Chat is ON, you wish to be available to chat and you need to hear the page. It is advisable to turn Chat OFF during late night hours, when the bell is an unwelcome alarm, or when you do not wish to be disturbed.

While the system is paging, the Sysop may press any key to engage chat. This displays *Hello John Doe* and allows the user and Sysop to converse by typing to each other.

BBS-PC! automatically wraps the typed text to the caller's screen settings. To exit chat, enter a / (slash) on a blank line and press Return. The user returns to where they were on the system.

After 30 seconds of unsuccessful paging, **BBS-PC!** displays the message *SYSOP not available*. If the Chat option is OFF from the Local Screen, the message *SYSOP not available for chat* appears. There is no attempt to page the Sysop.

If a user sees one of these messages, their name appears in yellow (or bright) in your status box. This makes it easy to identify users who wish to chat. To force a chat interrupt at anytime, press the F1 key. Exit chat the same as above.

Chatting with new users is often enjoyable and new Sysops often

can't wait to chat with users. Common courtesy dictates you do not force a chat interrupt on every unsuspecting user. Along the same lines, it is unreasonable of users to expect you to be available for chat at all times.

Function 8 - Expert Menu Toggle

X: Toggle expert menus on/off

Parameters: N/A

Description: This function temporarily toggles the user's status from Expert to Novice and vice versa. Novice users automatically see each new menu and sub-command option menus. Experts only see the menu or command prompts unless they enter ? and press Return.

If you are a Novice, select this command to display:

Expert user

To switch back, enter the command again.

Novice user

This change in status lasts only for the current call. To make the change permanent select Function 4 (*Change/Examine User Record*).

Function 9 - Leave a Message

L: Leave a message

Parameters: N/A

Description: This function permits the user to enter new messages in the system. Select this function and this first prompt appears:

To: SYSOP

This is the person to whom the message is addressed. In this case, the Sysop.

If a users tries to leave a message to someone not registered on your system or misspells someone's name, the message *User not in file, continue (Y)/N?* appears. The default is Y. When a user leaves a message in an open section where anyone can read it, the exact name is not really necessary. However, when you leave private messages in an E-Mail section, the exact name has to be entered or the recipient is never flagged to read the message.

To abort the message when the user's name is not found, enter N. You return to the menu from where the leave message function is selected.

The next prompt is the subject, to indicate the general message topic.

Subject: Test

Novice users see the next two lines prior to the message enter prompt.

Enter your message text
Blank line to end message

Expert users only see this prompt:

1:

Whenever a line is longer than the user's screen width, it is automatically word-wrapped. That is, the word which is too long for the line is erased and placed on the line below. If users do not see the word wrap feature work properly, their backspace code is not set correctly. See Function 4 (*Change/Examine User Record*) for more information on the backspace code.

Messages can be any number of lines, as long as the message does not exceed 2048 bytes (2k). When the message size approaches its maximum, **BBS-PC!** displays a prompt with the number of characters remaining.

While the user enters the message, they can press Ctrl-X or Esc to erase the text to the beginning of the line.

BBS-PC!'s messages display much like text files. Messages can be formatted automatically to the caller's screen width when read, or left unformatted to appear exactly as entered.

Below is an example of a formatted message entered by a user with a screen width of 40 columns.

```
1: This is a test message to the Sysop.  
2: BBS-PC! has a very flexible message  
3: system that allows new and experienced  
4: users alike a means to communicate  
5: easily.
```

Here is the same message a user sees with a screen display of 65.

```
Msg: #1  Sec: 1 - General  
      02-OCT-87  09:33 AM  
Subj: Test  
From: John Doe  
      To: SYSOP (X)
```

```
This is a test message to the Sysop. BBS-PC! has a very  
flexible message system that allows new and experienced users  
alike a means to communicate easily.
```

All lines are formatted until a blank line or the end of the message is reached. To insert a blank line, enter a (.) period at the beginning of a line and press Return or press or the space bar and then press Return.

BBS-PC! normally stores messages so they are formatted. To store an unformatted message, type *SU* when the *Subcommand* prompt appears from the leave message options.

In instances when you only want portions of a message to be unformatted, precede the line with a (.) period, space or tab.

For example:

```
1: .*****
2: .* For Sale *
3: .*****
4: .
5: One Cray super computer. Asking
6: $500 or best offer. No software
7: included.
```

Since you want the box to appear as you entered it, those three lines are preceded with a (.) period. When the message is read, they'll see something similar to below:

```
*****
* For Sale *
*****
```

```
One Cray super computer. Asking $500 or best offer. No
software included.
```

Notice the first three lines appear as they did originally while the body of the message formatted to the caller's screen width.

Below is an example of the same message without the (.) periods to keep the first three lines unformatted.

***** * For Sale * *****

One Cray super computer. Asking \$500 or best offer. No software included.

While this doesn't look bad, there are other instances when formatting can cause the message to be almost unreadable. A good example is columns of figures.

Press Return at any point to stop entering the message. The following appears:

Options:

A: Abort message
C: Continue message
D: Delete line
E: Edit line
H: Additional help
I: Insert line
L: List message
N: Section names
P: Preview message
R: Replace line
S: Store message

Subcommand:

Expert users only see the *Subcommand* prompt. To see the options, press Return at the prompt.

Each item works as follows:

A: Abort message: Select this option to exit the leave message function. The prompt *Are you sure?* appears. Enter *N* or press Return to continue, *Y* to exit the message without storing.

C: Continue message: This option allows you to add text to the end of a message before it is stored.

D: Delete line: Displays the prompt *Line to delete:.* Enter the line number to delete or press Return to cancel. Before the line is deleted it is displayed to the user with an *Okay to delete?* prompt. You may press *Y* to confirm or *N* to cancel. Once the line is deleted, all the lines below move up one.

At the *Subcommand* prompt you may enter *Dx* where *x* is the line number to delete. This avoids the line number prompt but still displays the line and the *Okay to delete?* prompt.

E: Edit line: This option lets you make changes to a line without having to re-type the entire line. You may enter the command and then the line number to edit, or *Ex* where *x* is the line number to edit. Either way, the line number appears with a *String to replace:* prompt.

Enter the characters you wish to replace and press Return. The *Replacement string:* prompts for the characters to insert. Enter the replacement string and press Return. The line is re-displayed and an *Okay?* prompt appears. Enter *Y* to confirm or *N* or press Return to cancel.

H: Additional help: Since there are a number options available in BBS-PC!'s message base, an online help file is available. The file typed is EDITHELP.TXT. If there is additional information you wish to include, feel free to make changes.

I: Insert line: This command allows you to insert a line in the message. The *Insert before line* prompts for the line number. You may also press *Lx* where *x* is the line number at which you wish to insert. Enter the new line and press Return. All lines at and below the line number specified are moved down one line and the new line inserted at that position.

L: List message: Displays the entire message as entered, including line numbers. Use this option to verify the message prior to making changes.

N: Section names: This command displays the section numbers available to which the user has access. If the user voluntarily masks themselves out of a section, it is not displayed. This is useful to help maintain some consistency in where messages should be stored.

P: Preview message: Allows you to view the message as it appears when read by other users. The entire message is formatted to your screen size. To view the message at another screen width enter *Px*, where *x* is the number of columns at which to format the message, acceptable values are 32-132.

R: Replace line: This command is perfect when the line needs extensive editing. It is far easier to replace the entire line than use a series of edit commands. Enter the command and then the line number or *Rx* where *x* is the line to replace. The old line appears and prompts you for a new one. Enter the replacement line and press Return. There is no canceling this command once selected.

S: Store message: This option stores the message. There are a number of additional options available:

The first prompt is the section number prompt. What appears greatly depends on the whether the user or the menu item masks out section numbers.

Sections:

0: [RWUD] * E-Mail *

1: [RWUD] General

Which section?

If the message is a Reply to an existing message, type *S* to store the message in the same section number. You may also press *Sx* to store the message in a specific section number where *x* is another section number.

Additional Store options include:

SL: Stores the message and locks it to prevent it from rolling off the system. Only Sysops may lock a message.

SP: Stores a private message. If the section doesn't support a private message flag, the error message *No private messages* appears.

SU: Stores an unformatted message. When the entire message needs to be formatted, use the *SU* option, otherwise it is better to use the (.) period to force unformatting and allow **BBS-PC!** to format the rest of the message.

Don't enter (.) periods at the beginning of a line and then store the message as unformatted (*SU*), or the periods appear as part of the message.

SPLUx: Stores a private, locked and unformatted message in a specific section number.

Any of these commands may be combined, provided the option is supported and section number is the last character.

Function 10 - Leave a Message To Sysop

Y: Yes, leave a comment to SYSOP

Parameters: N/A

Description: This function automatically addresses a message to the SYSOP with the subject *Comment to Sysop*. Only the message need be entered. If the menu item masks in a section for Sysop comments, then a section number does not have to be entered when the message is stored. Refer to MENU.TXT for a menu example. .

Function 11 - Read Messages

R: Read messages

Parameters: F, I, M, N, R, S, T

Description: This function permits users to read messages stored in the system. What messages can be read depends on whether the user or the menu item masks out sections. Chapter 8 contains detailed information to mask out section numbers with menu items and give the appearance of separate message bases.

When a user selects the Read message function the following appears:

Options:

A: Abort command

F: Forward multiple

I: Individual messages

M: Marked messages

N: New messages

R: Reverse multiple

S: Search category

T: Follow threads

Subcommand:

Expert users only see the *Subcommand* prompt. To display the read message options, press Return.

A: Abort command: Quits the Read message function and returns you to the menu prompt.

F: Forward multiple: Select this to view messages in message number order. The number of messages in the system and the low and high message numbers is displayed. You are then prompted to enter the starting message number. Press Return to start reading messages from the first message in the system.

I: Individual messages: This option lets the user view one message at a time. When you select this, it displays the number of messages with low and high message numbers. Enter the message number you wish to read and press Return. After you read the message you may enter another message number. Enter 0 or press Return to cancel.

M: Marked messages: Marked messages can be messages left to you or messages you have marked using Function 13 (*Scan Messages*). There are no prompts for this command. If no messages are marked, none are displayed.

N: New messages: This option only displays messages which you have not read. **BBS-PC!** uses the highest message read counter in each user's record to determine which messages are new and should be displayed. Messages are read in message number order.

R: Reverse multiple: This works like option *F* except messages are read in reverse order, from high message number to low.

S: Search category: In a large message base some users may not have the time to read everything of interest. **BBS-PC!** supports a message search function. Select this option to display these options:

F: From: This displays all messages from the person you enter at this prompt.

S: Subject: Displays all messages which match the subject you enter.

T: To: Displays all messages to the person you enter at this prompt.

Case does does not matter and partial strings are acceptable. For example, if you enter *TE* as subject, messages with *TEST*, *test* and *TERMINAL* as subject headers are displayed.

For names you may search for *John Doe* and enter *Jo* or *Doe*, but not *Jo Doe*.

T: Follow threads: Suppose you're reading new messages in a system. You see messages appear later which are replies to another message, and they're in message number order, which is frustrating. If all those messages were grouped together you would probably be able to remember what everyone is discussing.

BBS-PC! understands that and provides message threading. A message thread starts when someone replies to an existing message with the *RE* command (explained further in this section). If another user replies to *that* message, it too becomes part of the thread. As long as there are replies to either the original message or one of the replies, it's part of the thread. Threaded messages can be easily identified; the subject of the message contains the message number of the previous message in the thread.

To read message threads, select this function. A prompt appears for the starting message number. Enter *N* for new messages or a message number.

The messages start displaying. If one of the messages has a reply, it's shown next. As long as replies to the original message or subsequent messages are found, they are shown in the order they were left. When no further replies are found, **BBS-PC!** shows the next newest message, and if that message has replies, they are also shown. In addition, **BBS-PC!** keeps track of the threaded messages so they are only shown once. If the next highest message is part of a thread which has been read, it is skipped automatically.

When a user reads message threads, **BBS-PC!** keeps track of the highest message read counter differently. Instead of the highest message number read in the system updating the user's high message counter, the low message thread numbers are used. As

each new thread is read the counter increases to the point where it includes the highest message in the system. As long as the counter doesn't reach the highest message, a user may disconnect and call again and read the unread message threads.

If your system has a number of message sections, a user can easily reach the highest message, or close to the highest message in the system. In which case, there may not be any "new" messages found in another section after they call back.

Though Novice users find the message prompts useful, the advanced user can easily skip them by entering the entire read message command from the menu prompt. For example:

RM: Reads marked messages only. No further options are required.

RR: Reads reverse multiple messages. **BBS-PC!** prompts for the starting message number.

RN: Reads new messages in message number order. No further options required.

RTN: Read threaded new messages. No further options required.

RFx: Read forward messages starting with message number *x*, the starting message number.

If a user does not enter an option which is required, **BBS-PC!** prompts the user.

No matter how you choose to read messages, **BBS-PC!** displays them the same.

Msg: #6 (P) (U) (L) Sec: 1 - General
14-OCT-87 09:47 AM
Subj: Test (R) (F)
From: John Doe
To: SYSOP (X)

This is a test message to the Sysop.

Reply(s) #7

(REply Quit ?) (Delete):

The first line in the message displays the message number and the section number and name to which it is stored. Optionally, you may see one or more of the following message flags:

(P) This message is stored as private. Only a Sysop or the person to whom the message is addressed may view a private message.

(U) This message is unformatted. Unformatted messages always display the same way they are stored. If the caller's screen width is too narrow for the message, the remainder wraps to the next line.

(L) This message is locked. Locked messages do not scroll off the system and must be deleted to be removed from the message base.

The second line is the date and time when the message was stored.

The third line is the subject. If the message is part of a thread, the subject is preceded by the previous message number. The following flags may appear next to the subject:

(R) This message has a reply.

(F) This message has been forwarded.

The fourth line is the person who sent message. The fifth line is the person to whom the message is addressed. If the name of the person is correct, then the message is marked for the user when they log onto the system. The following flag may appear next to the recipient's name:

(X) This flag indicates the message has been read by the recipient. It is often helpful to know your message has been read. This also lets the Sysop know if the message can be deleted.

The actual message appears next. If the message is longer than the callers page length, a *More* prompt appears and pauses the message until the user is ready to continue. The user may press one of the following keys while reading messages: Ctrl-S to pause a message, Ctrl-Q to continue and Ctrl-P to abort.

If the message has replies, the following appears:

Reply(s) #xxx #xxx #xxx

where *xxx* are the numbers of the replied messages.

The last line is the read message prompt. If the section does not support the deletion of messages, the user does not see the *Delete* prompt. An Expert's prompt is similar to the Sysop's:

(UA RE Q) (D F):

except the *F* (forward) command is not available. Whether the user is a Novice or Expert, the following options can be selected:

Options:

C : Continue

M : Mark message

NS: No stopping

Q : Quit
R : Read message
RE: Reply
RP: Read previous
RR: Read replies
RT: Read thread
UA: Use address

C : Continue: Continues to the next message.

M : Mark message: Marks the message so you may read it later with the *RM* command.

NS: No stopping: Select this to continue reading messages without pausing at all.

Q : Quit: Select this to quit reading messages.

R : Read message: Re-read the message.

RE: Reply: Reply to a message. Your name automatically appears in the *From:* prompt. The person to whom you are replying appears in the *To:* prompt. The same subject is used. When the message is stored it uses the same section number unless you specify another. Message thread continuity extends across section numbers, but if a user does not have access to a section your reply may never be read.

RP: Read previous: This reads the previous message in the thread. This works only with message threads. If the previous message scrolled off the system or does not exist, the message *Message not a reply* appears.

RR: Read replies: Reads the next reply in a thread. This is normally used if you use *RP* to return to the original message.

RT: Read thread: This reads messages from the beginning of the thread. This function works only if you're not already reading

threaded messages. If you are reading threads, use the *RP* and *RR* commands.

UA: Use address: This option is similar to *RE* except it prompts the sender of the message for a new subject and no default section number is used. The new message is not a part of the thread and the original message does not display the (*R*) reply flag. *UA* can be used when you're reading messages but wish to reply to the sender with a different topic. This is almost the same as Function 9 (*Leave Message*), except the *To:* and *From:* prompts are automatically entered.

There are a few commands which don't appear on the normal options menu. They include:

D : Delete: Deletes the message from the system. The delete message flag must be defined in the section number for this option to work. Users may not delete messages which are not from them or addressed to them.

M : Mark: Marks the message so you may read it again with the *RM* command.

T : Terminate: Aborts the read message function. This works the same as Quit.

RA: Read again: Reads the message again, like the Read command.

The Sysop has a number of additional commands not available to any user. They are:

D : Delete: Deletes the message from the system regardless from or to whom the message is addressed. This works whether or not the section supports message deletions.

E : Edit: Displays the user's record whose name appears in the *From:* prompt. Refer to Function 24 (*Change a User*) for more information.

F : Forward: This function moves a message. At the same time the message may be re-addressed, locked or stored to another section. The following displays the prompts for this option:

To: The person to whom the message is addressed. Press Return to use the same name.

Subject: The subject of the message. Press Return to use the same subject.

Section?: The new section number to store the message. Press return to use the same section.

Unformatted?: This is a Y/N response to store the message as unformatted. The default is *N*. This option is especially useful if someone accidentally stores an unformatted message as formatted. By forwarding the message and storing it as unformatted, the message appears correctly.

Private?: Prompts for a Y/N response to store the message as private. Private messages can only be read by the person to left the message, the recipient and a Sysop. The default is *N*.

Locked?: Prompts for a Y/N response to prevent the forwarded message from rolling off the system. The default is *N*.

After completing the last prompt, a message similar to the one below appears:

Forwarded to msg #x

where *x* is the new message number.

EM: Member: This option is similar to *E* except the user is automatically validated to member status prior to displaying the user's record for editing. Refer to Function 24 (*Change a User*) for more information.

Supplemental information on how the message base works can be found in Chapter 6 in the section titled, *The Message Base*.

Function 12 - Read EMAIL

R: Read EMAIL to or from you

Parameters: B, F, M, T

Description: This function is similar to Function 11 (*Read Messages*) except only messages which are addressed to or from you can be displayed. Any other messages in the section are skipped. This helps to give the illusion of a separate, private message base.

Below are the options available for this command:

A: Abort command
B: Both To and From you
F: Mail From you
M: Marked mail
T: Mail To you

Subcommand:

A: Abort command: Quits the Read E-Mail function and returns to the menu prompt.

B: Both To and From you: Displays all messages in the system which are addressed to or from you.

F: Mail From you: Displays any messages in the system which you left.

M: Marked mail: Displays only marked messages addressed to you. This is the fastest of the options, as the others search the entire message base. Remember, **BBS-PC!** automatically marks new

messages which are addressed to you, so this is the option most users select.

T: Mail To you: Displays any messages in the system which are addressed to you.

With this function, not even the Sysop may read another's message. Chapter 8 discusses how the Sysop may read messages in an E-Mail section using the menus.

Function 13 - Scan Messages

S: Scan message headers

Parameters: F, I, M, N, R, S, T

Description: This function works similarly to the read message function, but displays the message headers only, not the message itself. For example:

```
Msg: #6 (P) (U) (L)  Sec: 1 - General
      14-OCT-87  09:47 AM
Subj: Test (R) (F)
From: John Doe
To: SYSOP (X)
```

(Read Mark Quit ?) (Delete):

Scanning messages helps save time since you can mark only those in which you're interested and read them later with the *RM* command.

The same options available with Function 11 (*Read Messages*) are used here. Please refer to that section for further information.

Function 14 - Delete a Message**D: Delete a message**

Parameters: Message number

Description: This function removes a message from the system. For this function to work, the message the user tries to delete must be addressed to or from them. In addition, the section number must permit the deletion of messages. If either of these conditions aren't met, an *Access denied* message appears.

The Sysop may delete any message in the system as long as the menu item does not mask out any sections. See Chapter 8 for more information.

You may enter *D* or *Dx* where *x* is the message number. If you enter the command without a message number **BBS-PC!** displays the number of messages in the system with the high and low message numbers. Press Return to cancel the command.

Function 15 - Print File Catalog**C: Display file catalog**

Parameters: /x (directory number), /A, /S, *, ?

Description: This function displays the file catalog with file description. For example:

Natural list of files - 14-OCT-87 02:50 PM

MOTORBIKE	03-NOV-86	6912-T	amigabasic game
COSMO.ARC	14-AUG-87	12160-B	Asteroid Game..Very Nice...
KWIKCOPY.ARC	16-OCT-87	13824-B	TWO DRIVE COPY PROGRAM.
CLI.HELP.ARC	18-DEC-86	12160-B	CLI AND ED COMMANDS USED RREG
AME86.ARC	16-OCT-86	7936-B	RUN CPM ON PC
CHECKER.ARC	26-OCT-87	24704-B	Ray Traced HAM pic

The filename appears first with the date the catalog entry was entered or moved within the file catalog. The filesize appears next with the letter *B* or *T* to distinguish binary files from text. The file description appears last. **BBS-PC!** pauses at the end of each screen if there is a large listing.

The display catalog function shows all the files in a catalog (except those in Directory/0), or files for a specific directory number. Type *C/I* and press Return to display only those files in Directory/1. Please refer to Chapter 6 in the section titled, *File Transfers* for a discussion on directory numbers.

This function supports several parameters. One allows you to display the catalog listed in reverse order by age, display the catalog sorted by filename, and wildmasks to display only files which match the filename wildmask. For instance:

C/x: Displays the catalog by directory where *x* is the directory number.

C/A: Displays the catalog in aged order. Newest filenames appear first.

C/S: Displays the catalog sorted in alphabetical order by filename.

C ?.*: Displays only those files which fall into the pattern of the wildmask. The wildmask pattern does not correspond with the wildmasks supported by your particular operating system. Here are some examples for using wildmasks:

C D

C *.ARC

C ??A

C FILENAME.TXT

The first example displays the filenames which begin with the letter D.

The second displays the filenames which end with the file extension .ARC.

The third displays the filenames where the letter A is the third letter of the filename.

The fourth example looks for the exact filename.

Only one parameter can be used per function, unless you combine a parameter with a wildmask. You cannot display the files in Directory/100 in sorted order, but you can display the file catalog for Directory/1 and only those files which end in .ARC (C/1 *.ARC).

Function 16 - Browse Files**B: Browse files one at a time**

Parameters: /x (directory number), /A, /S, *, ?

Description: This function supports the same parameters used with Function 15 (*Print File Catalog*). The difference is in what appears and the other options available. For example:

```
File: MENU.TXT 10849-B
      08-OCT-87 (L)
Dir: 1 Sec: 1 - General
From: Sysop
Acc: 0
```

Sample menus for BBS-PC!

(D R Q) (K M): ?

Almost the same information appears when you use the Browse function. There are a couple of differences, however. The directory number where each file is located along with its section name, appears. The person's name who uploaded the file appears and the number of times the file has been read (*Acc*), or downloaded, is also shown.

The major difference is each catalog entry pauses before displaying the next filename. From this prompt you have the following options:

Options:

C: Continue: Displays the next filename in the catalog.

D: Download: Downloads file with the user's default protocol.

R: Read: Types the file to screen, unless it's a binary file.

Q: Quit: Aborts the Browse function and returns to menu prompt.

(D R Q) (K M):

The second set of options, (*K M*), are available to the Sysop or someone with Sysop access. *k* deletes the file catalog entry and the actual file on disk, if it was uploaded remotely. Files you upload locally and remove from the catalog leave the actual disk file untouched. *M* moves the file catalog entry to another section number, directory number, and includes other options. They are:

File name:

Section?

Directory?

New description?

File moved

File name: A new filename, optional. Press Return to use the same filename.

Section: Places the catalog entry in another section number.

Press Return to use the same section number.

Directory: Moves the catalog entry into a specific directory number. Press Return to use the same section number. Files uploaded remotely automatically default to Directory/0. Files in Directory/0 cannot be downloaded. You use this option to place the catalog entry into another directory number other than 0.

New description: Respond with Y/N to change file description. The default is N.

After this prompt, the message *File moved* appears. This means the changes you made were successful. In addition, the catalog entry's file date is updated to the time the file is moved. This is useful when you move files out of Directory/0 for general downloading. If the file was uploaded days ago and the file date not updated, the function to display new files only would not work properly.

B/x: Displays the catalog by directory where *x* is the directory number.

B/A: Displays the catalog in aged order. Newest filenames appear first.

B/S: Displays the catalog sorted in alphabetical order by filename.

B ?.*: Displays only those files which fall into the pattern of the wildmask. The wildmask pattern does not correspond with the wildmasks supported by your particular operating system.

Please refer to Function 15 (*Print File Catalog*) for examples of using wildmasks.

Function 17 - Upload a File

U: Upload a new file

Parameters: /x (protocol), Filename

Description: This function receives a file sent by a user from a remote location. Attempts to select this function without a user online causes a *Local upload access denied* message to appear.

BBS-PC! defaults to the file transfer protocol selected when the user registered. The user may enter *U* or *U filename.ext*. If no filename is entered this prompt appears:

File name:

If the filename already exists, an error message appears to that effect. Filenames which contain illegal characters return an *Illegal filename* message. Illegal filenames can occur when filenames of one type of computer are uploaded to a computer which cannot accept some of the characters in a filename. In these instances, pseudo filenames should be used. This option is discussed in Function 30 (*Define Section Names*).

After the name is entered, the section names appear. If the menu item masks one or more sections, those sections are not displayed. See Chapter 8 for more information.

Sections:

0: [RWUD] Private Mail
1: [RWUD] General
2: [RWUD] Local Interest
3: [RWUD] IBM-PC/XT/AT
5: [RWUD] Tandy 2000
8: [RWUD] Commodore Amiga
C: [RWUD] Comments
E: [RWUD] BBS-PC Sysops
Which section?

After the section number, enter the file description. This is the same description which appears when the file catalog function is selected.

Description (40 chars max)

[-----5-----10-----15-----20-----25-----30-----35-----]

Users should try to enter enough information so others can decide whether the file is worth downloading. After the file description something similar to this appears:

Upload disk has 2809856 bytes free
Starting XMODEM-CRC transfer
Use ^ X to cancel upload

When the user sees this, the actual file transfer can begin at their end. If for some reason the file transfer is aborted, an *Upload unsuccessful* message appears and **BBS-PC!** deletes the partial file and erases the catalog entry.

When uploading with a batch file transfer (Kermit, Ymodem-Batch and Zmodem), the user is not prompted for a file name. Instead, only the section number and description is entered. These file transfer protocols send the filename to **BBS-PC!** automatically.

BBS-PC! supports the following file transfer protocols:

ASCII Text

Kermit

Xmodem

Xmodem-CRC

Ymodem-Batch

Ymodem

Zmodem

A user may also upload with a protocol other than their default using the parameters shown below:

U/T filename.arc - uploads with ASCII text protocol.
U/K filename.arc - uploads with Kermit protocol.
U/X filename.arc - uploads with Xmodem protocol.
U/C filename.arc - uploads with Xmodem-CRC protocol.
U/B filename.arc - uploads with Ymodem-Batch protocol.
U/Y filename.arc - uploads with Ymodem protocol.
U/Z filename.arc - uploads with Zmodem protocol.

The protocol you select is in effect only for that upload. Refer to Chapter 6 under the section titled, *File Transfer Protocols* for a complete discussion on these protocols.

Function 18 - Upload a File From Local

L: Upload a file locally

Parameters: Filename

Description: This option allows you to enter your own files directly into the file catalog, one at a time. Only a Sysop should see and use this menu item. To your users, it should not appear on the menu. The first prompt appears:

File name:

This prompts for filename which appears in the file catalog. Enter the filename and press Return. Filename entries can be no more than 8 characters, followed with (optionally) a (.) period and 3 more characters, like *FILENAME.EXT*. If pseudo filenames are allowed, the filenames may be 15 characters and include spaces, etc., without following the filename pattern in the example above. **DO NOT** precede the filename with a drive/path. The next prompt appears:

Disk file:

This prompts for the filename which appears in the disk's

directory. Press Return to use the same *Disk file* name as the *File name*. Note the *File name* and *Disk file* names do not have to be the same. This is the basis for **BBS-PC!**'s pseudo filenames, which is discussed in Chapter 7 in the section titled, *Function 30 - Define Section Names*.

DO NOT precede the filename with a drive/path. **BBS-PC!** searches all the drive/paths specified in **BBSINIT -U**. If the file is not found a *File not found* error message appears. If you know the filename is correct, you may need to run **BBSINIT -U** and make sure your drive/paths are correct.

If the file is found, this prompt appears next:

Binary/Text? B

This designates the file type. Binary files can not be read from within **BBS-PC!** and must be downloaded. Text files can be downloaded or viewed online.

The next prompt requests the name of the person who is inserting the file catalog entry.

From:

Press Return to use the default name of *Sysop*, or enter another name.

Sections:

0: [RWUD] * E-Mail *

1: [RWUD] General

Which section?

All defined section numbers appear. The file may be placed in any section number which displays a *U* within the braces. The next prompt appears only with the local upload function:

Directory:

Unless you wish the file hidden from your regular users, enter a directory number other than 0. Refer to Chapter 6 under the section titled, *Directory Numbers* for a complete discussion on directory numbers and **BBS-PC!**'s file catalog.

The last prompt now appears:

```
Description (40 chars max)
[-----5-----10---15---20---25---30---35-----]
```

Enter a brief description about the file, up to 40 characters can be entered. Press Return and the menu prompt appears.

To enter a large number of files into the file catalog, refer to Chapter 10 under the section titled, *BBSFILE*.

Function 19 - Download a File

D: Download a file

Parameters: /x (protocol), Filename

Description: This function sends a file to a user at a remote location. Attempts to select this function without a user online causes a *Download illegal locally* message to appear.

BBS-PC! defaults to the file transfer protocol selected when the user registered. The user may enter *D* or *D filename.ext*. If no filename is entered this prompt appears:

File name:

If the file not found an error message appears to that effect. In the case where the file is in the file catalog but not found on disk a *File not found* message appears. When a user requests a file download, **BBS-PC!** searches all 16 up/dl paths. When the

file is found the following appears:

File size is 1792 bytes/2 blocks
Download time: 00:00:08
Starting YMODEM-Batch transfer
Use ^ X to cancel download

When the user sees this, they may start receiving the file at their end. If for some reason the file transfer is aborted, a *Download unsuccessful* message appears.

BBS-PC! supports the following file transfer protocols:

ASCII Text
Kermit
Xmodem
Xmodem-CRC
Ymodem-Batch
Ymodem
Zmodem

A user may also temporarily download with another file transfer protocol using the parameters shown below. See Function 17 (*Upload a File*).

D/T filename.arc - downloads with ASCII text protocol.
D/K filename.arc - downloads with Kermit protocol.
D/X filename.arc - downloads with Xmodem protocol.
D/C filename.arc - downloads with Xmodem-CRC protocol.
D/B filename.arc - downloads with Ymodem-Batch protocol.
D/Y filename.arc - downloads with Ymodem protocol.
D/Z filename.arc - downloads with Zmodem protocol.

The protocol you select is in effect only for that download. Refer to Chapter 6 under the section titled, *File Transfer Protocols* for a complete discussion on these protocols.

Function 20 - Read a File

R: Read a text file (formatted)

Parameters: Filename

Description: This function displays a file from the file catalog which is designated as text and formats it to the user's screen dimensions.

The user may enter *R* or *R filename.ext*. If the filename is not entered, **BBS-PC!** displays a filename prompt.

No file transfer protocol is used, though the user may open a capture buffer to save the text file with their telecommunications program.

Function 21 - Kill a File

K: Kill a file you uploaded

Parameters: Filename

Description: This function allows a user to remove a file they uploaded to the system. The command is *K* or *K filename.ext*. If the filename is not entered, **BBS-PC!** prompts the user.

A user may only delete files they uploaded as long as it's in Directory/0 and it's the same calendar day. For example, if the user uploads a file at 10:30 p.m. on Oct-15-1987, then the file may be deleted until 12:00 a.m. on Oct-16-1987.

All files uploaded are entered into Directory/0 automatically. After the Sysop moves the file out of Directory/0 or the date changes, only the Sysop delete the file. Of course, the Sysop may delete any file on the system.

Users who upload files often download them to check the file

integrity. If, for some reason there is a problem with the file or they make changes and need to update the file, they may use this function.

Both the file catalog entry and the file on disk are deleted. The only exception to this is when a file is uploaded locally by the Sysop. Then only the file catalog entry is removed.

Function 22 - Add a New User

A: Add a new user

Parameters: User's name

Description: This is a function normally available only to Sysops which allows the Sysop to add a member to the system without requiring the user to call the system and apply for membership.

To select the function, the Sysop may enter *A* or *A John Doe*. If the name is not entered, this prompt appears:

User name:

Enter the user's name and press Return. Something similar to this should appear:

John Doe

```
A: RD access : 01234567
B: WR access : 01234567
C: UP access : 01234567
D: DN access : 01234567
E: SYSOP      :
F: Privilege  : 10
G: Time limit: 60
H: D/U ratio  : Disabled
I: Menu set   : 0
```

J: Location :
K: Phone no :
L: Call back : No

Enter line to change:

The exact appearance depends on the values entered in Function 33 (*User Defaults*).

Though the user is now a member, the Sysop may make changes to the user's access levels or enter the user's location and phone number. These items are covered in Function 24 (*Change a User*).

It is also a good idea to enter a password for the user or **BBS-PC!** will let anyone on the system who is using that name without asking for a password. Enter a / (slash) and press Return to display the same information found under Function 4 (*Change/Examine User Record*).

After making any other changes which may be necessary, press Return twice to re-display to the user's record and exit the function. The message *John Doe added to user file* appears.

If the user's name is already in the system, the message *User already in file* appears.

Function 23 - Delete a User

D: Delete a user

Parameter: User's name.

Description: This is a function normally reserved for Sysops to permanently remove a user from the system.

The command is entered as *D* or *D John Doe*. If the user's name is not entered the Sysop is prompted.

After the name is entered, the message *John Doe deleted* appears. **Be careful when you use this function, BBS-PC! does not prompt for confirmation.**

If a Section Sysop attempts to delete a user whose access is not equal to their own, a *User access denied* message is shown.

The Section Sysop must also have a high enough privilege level to access this function and the user must not have access to section numbers different than those of the Section Sysop.

This type of security is what makes **BBS-PC!** so reliable and powerful. Even if you have Section Sysops, their access is great enough to aid you in maintaining the system, but restricted to the point where they cannot wreak havoc.

Function 24 - Change a User

C: Change a user's record

Parameters: User's name

Description: This is a Sysop function to edit a user's record, one at a time. **BBS-PC!** allows each user to have unique section access and privilege levels.

You may enter *C* or *C John Doe*. If the user's name is not entered as part of the command, it is prompted. Partial names may be entered if you're not sure of the person's name. *J Doe* or *Jo Doe* are both acceptable. **BBS-PC!** always tries to find the closest possible match.

The user's record appears similar to this:

John Doe

A: RD access : 01234567
B: WR access : 01234567
C: UP access : 01234567
D: DN access : 01234567
E: SYSOP :
F: Privilege : 10
G: Time limit: 60
H: D/U ratio : Disabled
I: Menu set : 0
J: Location :
K: Phone no :
L: Call back : No

Enter line to change:

A: RD access: This option prompts for the section numbers to which the user has Read Message access.

B: WR access: This option prompts for the section numbers to which the user has Write Message access.

C: UP access: This option prompts for the section numbers to which the user has Upload file access.

D: DN access: This option prompts for the section numbers to which the user has Download file access.

E: SYSOP: This option prompts for the section numbers to which the user has Section Sysop access. Section Sysop access allows a user the same privileges as the Sysop for both the message base and file transfer functions.

At the same time, a Section Sysop's access is no different than any other user's when they are in a section in which they do not have Section Sysop access. This permits a Section Sysop to help maintain certain sections of the system without having enough

access to do any damage to the system.

Each of the above options prompt for section numbers. Section numbers can be entered individually or in groups. Three special characters, the *!*, *+* and *-* can be used in conjunction to perform more than one masking operation.

Take this example:

A: RD access : 01234567

Select the option and at the *Read access* prompt, enter *045*. Line A now displays:

A: RD access : 045

Whatever section numbers are entered, they are the only sections masked in -- all other section numbers are removed.

To add or subtract section numbers to an existing mask, enter a plus sign and the section numbers. For example:

+ 12367

adds those sections to the existing mask and returns the user's read message access to its former level. Use the plus and minus signs on the command line to add and subtract section numbers at the same time. For instance:

A: RD access : 01234567

Select the item and enter *-34 + 84*. The new RD message access is:

A: RD access : 0125678A

The last special character is the exclamation point. When this is used, ALL section numbers are added or subtracted. Any or all three of the special characters can be combined to change a

section mask. Here are a couple of examples:

Read access: +!-AF

Read access: + 123-0BE

The first example adds all the permitted section numbers (+!) but removes section numbers A and F (-AF). This is much faster than entering each section number.

The second adds section numbers 1, 2 and 3 (+ 123) to the existing mask and removes section numbers 0, B and E (0BE).

If a Section Sysop uses the +! option, the user can only end up with a section mask as high as the Section Sysop. **BBS-PC! does not permit ANY user to increase their own or any one else to a higher access or privilege level.** This is why it is important never to tamper with the Sysop's record.

This feature of **BBS-PC!** is doubly important since it prevents several Section Sysops from "conspiring" to validate a user to levels beyond what each Section Sysop has individually.

Note that anytime **BBS-PC!** asks for section numbers for masking purposes, these same features are available.

F: Privilege: This is the user's privilege level. Privilege levels are used in conjunction with menu items to determine what menu items a user sees and whether they may access the function. Privilege levels range from 0-255. **BBS-PC!'s** generic menus use the following privilege levels:

Privilege range: 0-5	New User status
10-99	Guest/Member status
100-149	SYSOP status
150-254	SYSOP with terminal access
255	Wizard SYSOP

Any user with a privilege level of 0 is automatically locked out of the system. When such a user calls, the text file named LOCKOUT.TXT is displayed and then the user is logged off.

As you customize your system you may decide to use different defaults.

G: Time limit: This is the amount of time in minutes a caller may use the system. Function 34 (*System Defaults*) determines whether the limit applies for the entire day or just for the call. The maximum time limit is 120 under normal circumstances.

H: D/U ratio: This option is used to force a user to upload a file after downloading so many. Many systems never receive uploads since all the users do is download files.

Dn/Upl ratio:

Downloads:

Uploads:

The first prompt may be entered as 10:1, which requires 1 upload for every 10 downloads, 3:1 for one upload for every 3 downloads or 0 to disable the ratio. When disabled, there are no upload requirements. All ratios must be in the order of $x:1$ where x can be as low as 1 or as high as 99.

The second prompt lets you change the number of files the user has downloaded. If the user has a history of uploading material that you do not approve, you can reset the user's download counter. Press Return to use the default value.

The third prompts for the number of files uploaded by the user.

I: Menu set: The user's default menu set. This can be no higher than the highest menu set entered in Function 34 (*System Defaults*).

J: Location: The user's city and state of residence.

K: Phone no: The user's phone number. Many systems require a phone number for validation.

L: Call back: Displays the prompt *Callback security (Y/N)*. The default is *N*. If this option is selected, each time the user calls, they first enter their name and password. **BBS-PC!** displays *CALLBACK.TXT* and logs the user off the system. 15 seconds after hangup, **BBS-PC!** dials the phone number found in the user's record. When carrier is detected, the user is prompted for the name and password. If everything is satisfactory, **BBS-PC!** resumes the session normally, otherwise **BBS-PC!** disconnects and waits for the next caller.

From the change user prompt you may enter a / (slash) and press Return to display the same information found under Function 4 (*Change/Examine User Record*).

Function 25 - Purge Inactive Users

P: Purge inactive users

Parameters: N/A

Description: This function allows a Sysop to delete users which have not called recently. Enter the command to display:

Purge date (mm/dd/yy):

Privileges (low-high):

Are you sure?

The purge date is the date from which a user should have called at least once. If your purge date is 9/15/87 and a user last called on 9/14/87, the user is a candidate for purging.

The second line prompts for the privilege levels of those users who are actually purged. If the user does not fall within the privilege range you enter, then they are not purged, regardless

of when they last called. Press Return for the default privilege range of 0-255.

The last line confirms the purge command. The default is *N*. As each user is purged, their name appears on the screen.

Function 26 - Purge Messages

O: Purge multiple messages

Parameters: N/A

Description: This function allows a Sysop to delete old messages from the system. Though **BBS-PC!** has an almost self-maintaining message base, there may be times when you wish to remove very old messages. The function displays:

Message number:

Locked messages?

Are you sure?

Enter the starting message number. Press Return to cancel.

BBS-PC! deletes all messages which are below the message number you enter. If you enter 52, then messages 51-1 are removed.

The second line prompts whether to include the locked messages. Answer *N* to save the locked messages or *Y* to remove them.

The last line confirms your selection. The default is *N*. As each message number is deleted, its number appears on the screen.

Function 27 - Print User List

L: List current user file

Parameters: /C, /G, /P, User's name

Description: This function allows the Sysop to display the users

in the system. A Guest, who has applied for membership or a Member, who has been validated by the Sysop are both displayed with this function. Users appear in alphabetical order by last name:

Joe Blow	Ph: 305-790-0770
West Palm Beach, FL	Tm: IBM

Last call : 15-OCT-87	RD access: 01234567
Password : MSS	WR access: 01234567
Time limit: 60	UP access: 01234567
Privilege : 10	DN access: 01234567
D/U ratio : Disabled	SYSOP : 01234567
Downloads : 0	Uploads : 0
Calls : 0	Messages : 0

(D E L M Q):

At this prompt you have several options available:

D - Deletes the user from the system.

E - Edits the users record. This works the same as Function 24 (*Change a User*). After you make changes to the user's record it is re-displayed. Press Return to list the next user.

L - Leaves the user a message.

M - Makes the user a member. Displays the user's record like Function 24 (*Change a User*) so further changes may be made.

Q - Aborts this function.

The parameters for this function work as follows:

L/C - Lists the users continuously, without pausing at each. To abort, press Ctrl-P. Use the F10 key to save the entire user list to a text file for later viewing.

L/G - Lists all the Guests in the system. This option is the same as the *G: Guest List (new users)* menu item. Use this option to quickly validate a Guest to a Member.

L/P - Lists all the users within a specified privilege range.

L John Doe - List all users starting at this user name. Enter a partial name to have BBS-PC! search for the closest possible match.

A user or Section Sysop may not view user's records whose privilege is greater than their own.

Function 28 - Reset Bulletin Flags

R: Reset member bulletin flags

Parameters: N/A

Description: This function not only globally resets bulletin masks, it can temporarily disable bulletins from displaying.

When a bulletin is displayed to a user, the bulletin's mask is set for that user. The user does not see the bulletin again until the bulletin mask is reset. Select this function to display:

**Bulletin mask:
Are you sure?**

Bulletins are masked by section number. Enter a bulletin mask as you would any other section number. If you enter section numbers without the plus or minus sign, then the bulletins for the other sections become temporarily disabled. For example:

Bulletin mask: 1CF

resets the bulletin mask in all the users records for sections 1, C and F and disables all other bulletins from displaying.

+ 12367

resets the bulletin mask for those section numbers and does not disable any bulletins.

Use the plus and minus signs on the command line to add and subtract bulletin masks. For instance:

Bulletin mask: -27 + 5D

disables bulletins for section numbers 2 and 7 and resets the bulletin masks for section numbers 5 and D. All other defined section bulletins display as before. Use **+/** to automatically reset all the bulletin masks without disabling any.

After the function is selected and the bulletin mask is entered, the message *Bulletin flags reset* appears.

Function 29 - Update User Defaults

U: Globally edit user access

Parameters: N/A

Description: This function allows you to update some or all of your user's records. This is a time-saving feature if you have hundreds of members. The function displays the following prompts:

Privilege:

Time limit:

D/U ratio:

Menu set:

RD access:

WR access:

UP access:

DN access:

Privileges (low-high):

Are you sure?

You'll notice these are almost the same options available with Function 24 (*Change a User*).

Privilege: Enter the new privilege level for the users. Press Return for no change to the user's record.

Time limit: Enter the new time limit for the users. Press Return for no change to the user's record.

D/U ratio: Enter the new download/upload ration for the users. Press Return for no change to the user's record.

Menu set: Enter the new default menu set for the users. Press Return for no change to the user's record.

RD access: Enter the new Read message mask for the users. To add a read message mask, enter +123. In general, follow the same section masking procedure with these four prompts as you do with Function 24 (*Change a User*). Press Return for no change to the user's record.

WR access: Enter the new Write message mask for the users. Press Return for no change to the user's record.

UP access: Enter the new Upload file mask for the users. Press Return for no change to the user's record.

DN access: Enter the new Download file mask for the users. Press Return for no change to the user's record.

The first eight lines prompt for the actual change you wish to make to the users record. **If no change is entered, that information is not updated for any of the user's records.**

Privileges (low-high): Enter the privilege range for those users records who you wish to affect. Press Return for a range of 0-255.

Are you sure? Press *N* or Return to cancel, *Y* to make the defined changes. The message *User records updated* appears when the function is complete.

To increase everyone's time limit on the system to two hours, enter:

Privilege:
Time limit: 120
D/U ratio:
Menu set:
RD access:
WR access:
UP access:
DN access:
Privileges (low-high): 0-255
Are you sure? y

No other change is made to any of the user's records, Read message access, etc. is untouched. To give new guests a higher privilege level and change some section masks just for those users enter:

Privilege: 20
Time limit:
D/U ratio:
Menu set:
RD access: + A
WR access: + 356-B
UP access: 0BF
DN access:
Privileges (low-high): 10-10
Are you sure? Y

Four major changes to a large group of your users has been accomplished.

1 > All users who have a privilege level of 10 now have a level of 20.

2 > Read message access to section number A is added. If the user also has Read message access to other sections, those section numbers are not changed.

3 > Write message access is added to section numbers 3, 5 and 6. Write message access to section B is removed.

4 > Upload file access to these users is now restricted to sections 0, B and F.

Again, please review Function 24 (*Change a User*) if you have any questions on adding, removing or changing section masks.

Function 30 - Define Section Names

N: Display/edit section names

Parameters: N/A

Description: This function allows the Sysop to define any or all of the 16 section numbers available in **BBS-PC!**.

The section name definition determines a great deal of how messages, file and bulletins are treated by **BBS-PC!**. When you select this item you see something similar to below:

Sections:

- 0: [DFT---R] Private Mail**
- 1: [DFT-B-R] General**
- 2: [DFT----] Local Interest**
- 3: [DFT----] IBM-PC/XT/AT**

```
4: [-----]
5: [DFT----] Tandy 2000
6: [DFT--*-] TRS-80 III/IV
7: [-----]
8: [DFT-B*-] Commodore Amiga
9: [-----]
A: [-----]
B: [DFT----] Special Transfers
C: [DFT----] Comments
D: [-----]
E: [DFTPB--] BBS-PC Sysops
F: [-----]
```

Section number:

Section name:

Flags (DFTPB*R):

All section numbers appear, regardless of whether or not they've been defined. The first prompt selects the section number to define or re-define.

The second line prompts for a section name. Section names appear on the first line of messages, when you browse files, etc..

Section names are not only friendlier than section numbers, they indicate what type of information belongs in the section. Press Return to use the same section name. To remove a section name, press the space bar and then Return.

As part of your system maintenance you'll find that some section numbers are more active than others. Many Sysops tend to remove less active sections or re-name them in an attempt to generate additional interest in the system.

The last prompt defines the flags for the section. These flags determine how the messages appear to a user, if a bulletin is displayed, etc.. The following is a list of section number flags supported by **BBS-PC!**:

D - Enter this flag to have messages display the date the message was stored. Archival message sections could remove this flag since the date would not be important.

F - Select this flag to have messages display the person who left the message. Sections which feature anonymity could remove this flag.

T - This flag display the name of the person to whom the message is addressed. Group debate sections would not need this flag.

No matter which of the above flags is selected, **BBS-PC!** always displays the message header and subject.

P - This flag allows users to save private messages in a section. Only the person who left the message, the recipient of the message and a Sysop can read the message. To all other users, private messages appear as:

```
Msg: #4 * Private *  
To: John Doe
```

Some systems prefer not to support private E-Mail sections and instead allow private messages in any or all sections. This is a matter of personal preference.

B - This flag indicates whether or not a bulletin is displayed for the section. After a user logs onto the system, any bulletins which the user has not read are displayed in section number order. If a user has some type of RD, WR, UP or DN access to a section, then that bulletin is displayed to the user, once. After the user reads the bulletin, it is not displayed again until the Sysop uses Function 28 (*Reset Bulletin Masks*).

If a section has a bulletin flag but the bulletin itself is missing from the disk, then an error like this appears:

```
%% File BULL-F.TXT missing %%
```

Whenever a bulletin flag is set you must create the corresponding bulletin text file, like *BULL-8.TXT*.

* - This flag creates pseudo filenames for any file uploaded to that section number.

When this flag is not present, the filename entered in the catalog is the name used to store the file on disk. Unfortunately, every type of computer has its own filename restrictions. If a user tries to upload a file using the wrong type of filename, **BBS-PC!** displays an *Illegal filename* message.

Since most users won't know the reason why the filename isn't correct, they soon become frustrated and abandon their attempts. Here is where pseudo filenames come in.

When a user uploads a file to a section with this flag, **BBS-PC!** creates a generic name for the actual file on the disk. **BBS-PC!** keeps track of the filename in the file catalog and the other name for the disk file. As long as pseudo filenames are used, the *Illegal filename* message never appears. Here are some examples of pseudo filenames:

FILE0001.U1

FILE0034.U2

All filenames start with the name *FILE*. The next four numbers represent the actual number of the file. **BBS-PC!** increments this filename counter by one as each new pseudo filename is uploaded.

The file extension represents the node through which the file was received. *U1* refers to node 1 and so forth. Node numbers in **BBS-PC!** can go as high as 99.

Since it is impossible to know which pseudo filename represents which catalog entry, **BBS-PC!** has provided a utility called **CHKFILE**. To learn more about **CHKFILE**, please refer to Chapter

10.

When the pseudo filename flag is removed, filenames again appear on disk as they do in the catalog. Users of the Commodore Amiga generally won't need this flag, unless users upload TRS-80 files which contain a forward slash /.

R - When this flag is present, it allows users to delete their messages. This includes messages they have left and messages addressed to them.

Function 31 - Terminal Defaults

W: Edit terminal definitions

Parameters: N/A

Description: This function defines various terminal types for your users. Allowing a user to select a terminal definition makes it much easier on a new user who is unfamiliar with bulletin board systems.

When this function is selected, something similar to the following appears:

Name	Page	LF	NULS	CLS	codes	BS	codes	MEN	Proto

0: ASCII Terminal	80 x 24	Y	0	12	0 0 0	8	0 0	0	XMODEM
1: IBM-PC/XT/AT	80 x 24	Y	0	12	0 0 0	8	0 0	1	XMODEM
2: Tandy 2000	80 x 24	Y	0	12	0 0 0	8	0 0	0	XMODEM
3: TRS-80 III/4	64 x 16	N	0	28	31 0 0	8	0 0	0	Text
4: Timex 2068	32 x 22	Y	0	12	0 0 0	8	0 0	0	Text
5: Apple II	40 x 24	Y	0	12	0 0 0	8	32 8	0	Text
6: C64/128	40 x 24	Y	0	12	0 0 0	8	32 8	0	Text
7: Tandy 1000/2000	80 x 24	Y	0	12	0 0 0	8	0 0	0	XMODEM
8: Commodore Amiga	80 x 24	Y	0	12	0 0 0	8	32 8	0	XMODEM
9:	0 x 0	N	0	0	0 0 0	0	0 0	0	Text

Terminal number:

When **BBS-PC!** initializes its datafiles, two sample terminal definitions were entered. Feel free to copy any of the definitions list above.

Up to 10 terminals may be defined. Notice that some of the definitions are identical to others. The truth is, most computers use the same settings. However, having different terminal types helps identify the type of user and makes it easier for them to select a terminal type with confidence.

To add or change a terminal definition, enter a terminal number and press Return.

New name: Enter the new name for the terminal definition or press Return to use the default name. Press the space bar and then Return to remove the terminal definition. While the codes are still displayed, the definition name does not appear to the user.

Page width: This is the number of columns which can be displayed on the user's screen. Values from 32-132 are acceptable. You may press Return to skip this prompt, a value must be entered.

Page len: This is the number of rows which can be displayed on the user's screen. The page length also determines when a *More* prompt appears when messages and text files are viewed. Values of 0-231 may be entered. A value of 0 disables *More* prompts.

Linefeeds: This prompt determines whether **BBS-PC!** terminates each line with a CR + LF (carriage return plus line feed) or a CR only. Answer Y for most terminal definitions. If a user is having problems with double-spacing, have them turn their Linefeeds option off.

NULS: This is the number of null characters sent at the end of each line. User's who are printing while online may sometimes

need several nulls to allow their printer to keep up with the system. Acceptable values are 0-50.

CLS code1: Up to 4 clear screen codes can be defined. All four codes are combined together and sent to the remote user each time a clear screen code is required. Most terminals work perfectly with a value of 12. Press Return for a default of 0.

CLS code2: This is the second clear screen code. Press Return for a default of 0.

CLS code3: This is the third clear screen code. Press Return for a default of 0.

CLS code4: This is the fourth clear screen code. Press Return for a default of 0. If you are defining a VT-100 terminal, the clear screen code should be 27 91 32 74.

BS code1: This is the first of three codes which can be sent when a backspace code is required. A value of 8 should work with most terminals. Press Return for a default of 0.

BS code2: This is the second backspace code. Press Return for a default of 0.

BS code3: This is the third backspace code. Press Return for a default of 0. Terminals which cannot perform a destructive backspace should use a backspace code of 8 32 8.

Menu set: This is the default menu set the user sees when logging on. Menu sets are discussed in Function 110 (*Change Menu Set*). Acceptable values are 0-9. Press Return for a default value of 0.

The next information displayed is the default file transfer protocol:

Protocols:

T: ASCII Text
X: XMODEM
C: XMODEM-CRC
Y: YMODEM
B: YMODEM-Batch
K: Kermit
Z: Zmodem

U/D protocol:

After this prompt, the terminal definitions appear again. Press Return to quit the function.

These terminal definitions are provided as basic defaults for your users. Any of this information may be changed by the user with Function 4 (*Change/Examine User Record*).

Function 32 - Modem Defaults

M: Change modem defaults

Parameters: N/A

Description: This function displays the modem settings. Once these settings are correct, do not change them again unless you change modems. After making changes to the modem settings you should always exit **BBS-PC!** to the operating system and load the program again. This insures that **BBS-PC!** recognizes the new modem settings.

When you select this function, the following appears:

Modem number (0-1)?

A: Default baud:
B: Modem type :
C: Setup string:
D: Dial prefix :

E: Dial suffix :
F: 300 result:
G: 600 result:
H: 1200 result:
I: 2400 result:
J: 4800 result:
K: 9600 result:
L: 19200 result:

Enter line to change:

This function was covered thoroughly in Chapter 4. If you read the manual from the beginning, by now your modem settings are correct. Please refer to Chapter 4 if you need more information about this function.

Function 33 - User Defaults

S: Change user defaults

Parameters: N/A

Description: This function defines the various defaults for Guests and Members. A Guest is a user who used Function 3 (*Register/Add To Membership File*) to apply for membership. Members are users the Sysop has made a member through Function 27 (*Print User List*).

New users default to Guest privileges, except no user information is saved for them. If they do not register to become a member then the next time they call they must go through the entire process again.

Guests:

A: RD access : 0123
B: WR access : 0123
C: UP access : 0123
D: DN access : 0123
E: Privilege : 5
F: Time limit: 30
G: D/U ratio : Disabled

Members:

H: RD access : 01234567
I: WR access : 01234567
J: UP access : 01234567
K: DN access : 01234567
L: Privilege : 10
M: Time limit: 60
N: D/U ratio : Disabled

Enter line to change:

These defaults are entered for you by **BBS-PC!**. Make whatever changes you think are necessary. To run an open system (no membership validation), give both Guests and Members the same access and privilege levels.

Please refer to Function 24 (*Change a User*) for specific information on making changes to the default access and privilege levels.

Function 34 - System Defaults

T: Change system defaults

Parameters: N/A

Description: This function defines the basic system defaults that should be addressed when you set up your system. Select this function to display:

System defaults:

A: Maximum messages: 200
B: Maximum users : 300
C: Maximum uploads : 100
D: Caller log size : 50
E: Caller log range: 0-255
F: Highest menu set: 0
G: Log-in method : 1
H: Upload reward : 0
I: New uploads : Closed
J: Time limit mode : Day
K: Sleep time (min): 5
L: SYSOP password :

Enter line to change:

BBS-PC! enters these defaults when its datafiles are initialized.

A: Maximum messages: This option defines the number of messages the system stores. After this value is exceeded, the next message entered in **BBS-PC!** deletes the lowest unlocked message. This feature provides the Sysop with a virtually self-maintaining message base.

The default value is 200 and should not be changed until you become more familiar with your system.

There are a couple of things to consider when you define the maximum number of messages. **BBS-PC!** dynamically allocates file space for its datafiles. When information in **any** of **BBS-PC!**'s datafiles is deleted, **BBS-PC! DOES NOT** release the space back to the disk. Instead, **BBS-PC!** re-uses the space within the datafile before claiming more space from the disk.

This generally results in faster disk response from **BBS-PC!** when searching for information, but also means the datafiles never shrink in size. If you specify 500 messages and later decrease the number to 100, no disk space is re-claimed.

If you have many users adding new messages at the rate of 200 + each day, your messages will roll off the system much faster than your users can read or reply. For systems with that kind of message activity, you may increase the maximum number of messages to 500 or greater. Before doing this, please make sure you have enough disk space for the larger datafiles. **BBS-PC!** allows 9999 messages in the system.

Calculating Maximum Message File Sizes

This formula is only an approximation, but should be close enough for your purposes. To calculate your maximum message file sizes (all three files combined):

(100 bytes + message size (max 2048 bytes)) * number of messages

The first 100 bytes is message overhead. The message size varies depending on the length of the message but can never be longer than 2048 bytes. Multiply that result with the maximum number of messages and you'll have a good idea how much disk space you will need.

With 200 default messages, all three message files combined should not exceed 429600 bytes (420k).

In reality, the message files probably won't even be half that size -- unless you have users who love to leave long messages.

B: Maximum users: This option defines the maximum number of users who may join the system. The default value is 300 and is more than enough for most systems. When the system reaches the maximum number of users, the error message *User file is full* appears when someone tries to add themselves as a Guest or if the Sysop tries to add a new member.

Calculating Maximum User File Sizes

To calculate your maximum user file sizes (both of them):

100 bytes * number of users

Using the default of 300 users, your user files should not exceed 3000 bytes (30k).

C: Maximum uploads: This option defines the maximum number of entries in the file catalog. The default value is 100 and is sufficient for a floppy-disk based system. Hard drive users can increase this number based on the amount of available disk space. Regardless of the value, **BBS-PC!** does not allow a user to upload a file if there is not enough disk space.

When the maximum upload value is reached, the error message *File catalog full* appears. **BBS-PC!** allows 9999 file catalog entries.

Calculating Maximum Up/Dl File Sizes

To calculate your maximum file catalog sizes (all three combined):

100 bytes * file catalog entries

If you use the default of 100 file catalog entries, your files should not exceed 10000 bytes or (10k).

D: Caller log size: The value you enter here determines how many of the past x callers are displayed, where x is the caller log size. The default is 50, which is enough to keep track of system usage for several days.

BBS-PC!'s statistics program, **BBSINFO**, uses the number of entries in the caller log to display system usage and other valuable information. The greater the size of the caller log, the greater the range **BBSINFO** reflects when displaying the amount of system use. Refer to Chapter 10 for more information on **BBSINFO**. **BBS-PC!** allows 9999 callers to appear in the caller log.

Calculating Maximum Caller Log Sizes

To calculate the maximum size of your caller log files (both files):

75 bytes * caller log size

Using the default caller log size, your files should not exceed 3750 bytes or (4k).

E: Caller log range: This option prompts for the privilege levels for those callers who are displayed in the caller log.

The privilege range works two ways. First, the range determines which users are visible in the caller log. Second, any user who falls below the privilege range may not view the caller log.

If a user's access is higher than the caller log range, then they may view the entire caller log. As an example, a caller log range of 10-254 shows only Guest and Members in the caller log but not when the Sysop logs into the system. However, the Sysop may view all callers.

F: Highest menu set: This option defines the highest menu set the user may use. Each terminal definition may have its own menu set. Set this value to the highest menu set in your terminal definitions. Multiple menu sets allow you to have one set of menus for users of 40 column screens and others for 65 and 80. In addition, alternate menu sets are used to display ANSI color and IBM graphics menus. If you are using alternate menu sets for the Sysop, make sure this value is lower than the Sysop menu set number.

G: Log-in method: This option determines what type of information is asked from users when they log onto the system. There are four types of log-in methods:

0 > - This method prompts the user for their full name, city and state and password.

1 > - This method prompts the user for their full name. If the user's location is not found, it is prompted. The last item the user enters is the password.

2 > - This method prompts for a separate First and last name. The user's location is always prompted. The last item the user enters is the password. When using this method, the Sysop should login with *SYSOP*; as the first name. The semi-colon prevents prompting for a last name which does not exist.

3 > - This method prompts for a separate First and last name. If the user's location is not found, it is prompted. The last item the user enters is the password. When using this method, the Sysop should login with *SYSOP*; as the first name. The semi-colon prevents prompting for a last name which does not exist.

BBS-PC! allows three attempts to enter a password. After the third attempt, the message *Illegal access attempted* appears and the system disconnects.

H: Upload reward: This option rewards users who upload files to the system. Some systems have trouble with users uploading new files and may wish to reward users with extra time on the system to encourage uploads.

The reward value gives the user so many seconds of additional time on the system for every kilobyte (1024 bytes) the user uploads. If the upload reward is set to 5 and a user uploads a file 65536 bytes long, their time on the system increases by 5 1/2 minutes.

I: New uploads: This option determines whether new files uploaded by users may be downloaded by any user or first validated by the Sysop. The default is *Closed* which is what most systems should use. If this option is set to *Open*, users can

download files which do not have any place on a bulletin board system, such as commercial programs. All the examples in this manual which refer to Directory/0 assume this option is set to *Closed*.

J: Time limit mode: This option determines whether a user's time limit on the system is for the Day or only for each Call. The default is *Day*. If a user has a 45 minute time limit, no matter how often the user calls within 24 hrs, they cannot exceed 45 minutes without **BBS-PC!** disconnecting them. If this is set to *Call*, then after time limit expires the user can call back for another 45 minutes.

K: Sleep time (min): This is the number of minutes **BBS-PC!** waits for a user to type a key before disconnecting. Some users have a tendency to call a system and not do anything, just to tie up the phone lines. If this becomes a problem, you can try decreasing the sleep time.

L: SYSOP password: This password is prompted for by any menu item with an access of 7. If no password is defined, then the menu item does not prompt the user. Read Chapter 8 for further information about access levels.

Function 35 - Node Defaults

V: Edit node defaults

Parameters: N/A

Description: This function defines the way each Node works. The defaults appear as follows:

Node defaults:

A: File open mode : IPL
B: Wake-up on call: No
C: Local bell : On
D: Window frame : On
E: Active lines : 0
F: Polled lines : 0

Enter line to change:

A: File open mode: This option determines how **BBS-PC!** opens its data files. Two methods are available, IPL and Login. The default mode is IPL (No) which stands for Initial Program Load. This opens the data files once when **BBS-PC!** is booted and keeps them open until you close the program by exiting to DOS. The Login (Yes) method opens the data files during an incoming call and automatically closes them when the call is terminated.

For systems with floppy drives, IPL is recommended. Since floppy drives can take 20 or 30 seconds to open the required data files, a caller may think the system is locked up while waiting for **BBS-PC!** to respond. One drawback to this mode is that if the system should suffer a crash due to a power out, **BBSFIX** has to be run to repair the corrupt datafiles. However, the convenience of much faster system response offsets this drawback.

Hard drive users can use the Login method. With fast access hard drives, the delays in opening and closing the data files between callers are minimal.

B: Wake-up on call: This item allows you to choose whether the screen turns itself on when a caller logs in. From the Local Menu screen, **BBS-PC!** turns the screen display off after 5 minutes of inactivity. If this option Yes, the screen automatically displays the activities of a new caller. You probably will set this to Yes at first, as all new Sysops are curious to see how their system runs. Once the novelty wears off, you may turn it off.

Regardless of whether the screen is active or inactive, you always have manual control. Press F9 key to toggle the screen on and off locally. Press any key to activate a blank screen.

C: Local Bell: This item controls whether your computer's bell rings locally. There are advantages and disadvantages to both. If the bell is on you'll hear it everytime they press an improper command. This can be an annoying late-night alarm clock. Regardless of whether or not the local bell is on, **BBS-PC!** always rings the bell when Chat is ON.

D: Window frame: This option determines whether you want the screen display surrounded by a border. If so, then answer *Yes*. This also reduces your local text display to 78 columns, which prevents you from viewing the STATS.TXT file created by **BBSINFO** or any other text files formatted to 80 columns. Make sure you change the Sysop's screen width to 78 columns to adjust properly to Local BBS Log-ins.

E: Active line: Select this item to display the following:

COM lines:

IBM USERS

This configures **BBS-PC!** for the number of COM ports you are using. *0* indicates COM1 is available and *1* applies to COM2. If you have both active, enter *01*. Do not list a non-existent or inactive COM port or **BBS-PC!** locks when it tries to locate the port. Press Return to have **BBS-PC!** use the current settings.

AMIGA USERS

At this time, only one serial port is available for the Amiga. Therefore, enter *0* as the active COM port.

F: Polled lines: This option determines which of active COM lines are polled (monitored) for an incoming call. The same rules apply here as with option E: do not poll a non-existent COM port. You may have two active COM ports but only choose to poll one of them for incoming callers. Press Return to have **BBS-PC!** use the current settings.

If you make the mistake of improperly installing an active or polled COM port, **BBS-PC!** will lock up when booting. Should this happen, do the following and re-configure your node defaults.
Type:

BBS-PC! -C:

and press Return. This boots **BBS-PC!** and instructs it to ignore both COM ports. Notice there is no blinking cursor over either of the polled COM ports on the Local Menu. Now go back to Node Defaults through the Maintenance module and make the necessary corrections.

While **BBS-PC!** can monitor two COM ports, only one node can be answered at a time. See Chapter 9 for information on multi-tasking with **BBS-PC!** on a Local Area Network.

Function 36 - List Phone Directory

L: List current phone directory

Parameters: N/A

Description: This function displays the phone numbers entered with Function 37 (*Change Phone Listing*).

```
A: BBS-PC! HQ.....1-305-790-0770 2400:8N1 Line: 0
B: MSS Niteline.....1-305-790-0773 2400:8N1 Line: 1
C: ..... 0:7N1 Line: 0
D: ..... 0:7N1 Line: 0
E: ..... 0:7N1 Line: 0
```

F:	0:7N1 Line: 0
G:	0:7N1 Line: 0
H:	0:7N1 Line: 0
I:	0:7N1 Line: 0
J:	0:7N1 Line: 0
K:	0:7N1 Line: 0
L:	0:7N1 Line: 0
M:	0:7N1 Line: 0
N:	0:7N1 Line: 0
O:	0:7N1 Line: 0

To dial one of these numbers, select Function 38 (*Dial Connect with Remote*).

Function 37 - Change Phone Listing

C: Change a directory entry

Parameters: A-O (letter of phone listing)

Description: This function allows you to change the phone entry dialed with Function 38 (*Dial Connect with Remote*). When you select this function, the following appears:

Listing (A-O):

Select the listing you wish to change. **BBS-PC!** displays:

A: BBS-PC! HQ.....1-305-790-0770 2400:8N1 Line: 0

the current values and then these next prompts:

New name: Enter the new name or press Return to use the default.

New number: Enter the new phone number.

Modem line: Enter the COM port to dial out.

Baud rate: Enter the baud rate, 300-19200 are acceptable.

Parameters: Enter communications parameters of 7E1 or 8N1.

Function 38 - Dial Connect with Remote**D: Dial a directory entry**

Parameters: A-O (letter of phone listing)

Description: This function dials a number from the phone directory listing. Enter *D* or *Dx* where *x* is the number of the listing. If you don't enter the letter, this next prompt displays:

Listing (A-O):

Enter the letter and the following message appears:

%% Dialing %%

BBS-PC! places the modem on-hook and dials the phone number in the listing. If there is no carrier detect after 30 seconds, a **%% No connection %%** message appears and the function terminates.

If the dial delay is not long enough, add tildes to the Dial suffix in Function 32 (*Modem Defaults*). Each tilde added to the Dial suffix increases the dial delay by one second.

This function was originally designed for callers using **BBS-PC!** as a satellite terminal. That is, the user calls in on one COM port, accesses this function and calls another system through the other COM port.

Once connected to the remote system, **BBS-PC!** works as a very basic terminal package, no file transfers are available though the F10 key may be used as basic capture buffer. If the system you call displays IBM graphics or ANSI color, they'll appear on your screen.

To disconnect and from this function, either exit from the remote system or press Alt-C (break). Once carrier is lost, the message

%% Connection terminated %% appears and the menu prompt displays.

If for some reason there is a problem with the modem line you select, the message *Modem line not available* may appear. Double check your Node defaults to verify that the COM port you are calling out with actually exists.

Function 39 - Unlisted Dial/Connect

U: Dial an unlisted number

Parameters: N/A

Description: This function works the same as Function 38 (*Dial Connect with Remote*), only a phone listing is not used and you must enter the dialing information below:

Ph number:

Modem line:

Baud rate:

Parameters:

Enter the same values as you would with Function 27 (*Change Phone Listing*). The only difference is **BBS-PC!** does not store these values. After the parameters are entered, the system makes the call.

To quit this function, exit from the remote system or press Alt-C.

Function 40 - Upload Direct

\$: Upload direct to disk

Parameters: /x (protocol), Filename

Description: This function uploads a file directly to the disk. This allows a Sysop to make changes to menus or bulletins and

upload the changes without dealing with the file catalog. From the menu prompt, enter \$ or *\$/x filename.ext*. If the filename is not entered, this appears:

Disk file:

The filename IS NOT entered into the file catalog. You may precede the filename with a drive/path. The command line can be up to 42 characters long.

Refer to Function 19 (*Download a File*) for a list of acceptable protocol parameters.

Function 41 - Download Direct

***: Download direct from disk**

Parameters: /x (protocol), Filename

Description: This function download a file directly from the disk. This allows a Sysop to make remotely download files which are otherwise inaccessible from the file catalog. From the menu prompt, enter * or **/x filename.ext*. If the filename is not entered, this appears:

Disk file:

The filename does not have to be in the file catalog. You may precede the filename with a drive/path. The command line can be up to 42 characters long.

Refer to Function 19 (*Download a File*) for a list of acceptable protocol parameters.

Function 42 - Direct File Kill

#: Kill a file from disk

Parameters: Filename

Description: This function deletes a file on the disk. Enter # or # filename.arc. If the filename is not entered, this prompt appears:

Disk file:

The file does not have to be listed in the file catalog. Even if it is, the catalog entry is not deleted. You may precede the filename with a drive/path, as long as the entire command does not exceed 42 characters.

Function 43 - DOS Gate

J: Jump to DOS

Parameters: DOS command or program name

Description:

IBM USERS

Exits **BBS-PC!** and places you in DOS. Once in the operating system, the remote user may access your system's operating system as if they were sitting down in front of your computer. Be careful of whom you give this type of access -- there nothing to prevent the user from deleting your hard drives files.

While in DOS there are limitations:

Make sure the statement **DEVICE = ANSI.SYS** is **NOT** in your **CONFIG.SYS** file or the remote user cannot see anything.

If you try to execute a program which is not 100% BIOS compatible, it fails to display anything to the remote user.

The Ctrl-C key is disabled and cannot be used to abort a directory display or exit another program.

To return to **BBS-PC!**, type EXIT from DOS and press Return. Make sure you're in the same drive/path as **BBS-PC!** before doing this or an error occurs.

Systems which are not 100% BIOS compatible may exhibit problems such as Carrier loss when remote users exit to DOS, disconnecting them, or a warm boot of the entire system. These are not problems due to anything configured with **BBS-PC!**, just an unfortunate limitation for some computers.

This function is highly system dependent. The IBM implementation of this function entails installing a driver at the time this function is executed which handles the routing of TTY input and output to the serial device. This driver is also responsible for monitoring carrier. If carrier is lost or a user's time is exceeded, control is returned to **BBS-PC!** where they are automatically logged off.

Because of the intimacy with the system software to provide these features and security, some IBM compatibles may encounter problems when executing this function.

AMIGA USERS

Technical difficulties with the Amiga operating system prohibit the use of this function. Micro-Systems Software apologizes for any inconvenience.

Function 44 - String Search

S: Search file descriptions

Parameters: Search string

Description: This function allows you to display files which match a search string. Enter *S* or *S string* and press Return. If the search string is not entered, the following appears:

Search string:

Enter a search string. Partial strings are acceptable and case does not matter; both upper and lower case are searched. The search string applies to the file description and the filename. A sample listing may appear as follows:

Natural list of files - 08-OCT-87 09:55 AM

**MENU.TXT 08-OCT-87 10849-B Sample menus for BBS-PC!
1 File(s) listed**

If several files match the search description, they also appear.

Function 45 - Display a Catalog of New Files

N: Catalog of new files only

Parameters: Date

Description: This option displays only files uploaded since the user's last call. Enter *N 00/00/00* to list files uploaded after a specific date. The system does not prompt you for a date. If you enter:

N 10/01/87

All files uploaded since October 1, 1987 are displayed.

Functions 46-99 Reserved for Future Use**Function 100 - Exit System**

E: End this call (goodbye)

Parameters: N/A

Description: This function disconnects the user from the system. When you select this function, the following appears:

```
Exiting at: 10:46 AM
Total time: 00:01
Last message in system: 454
Last message you've read: 230
LOGOUT.TXT
Connection terminated
```

Whether the user exits the system with this function, or disconnects by dropping carrier, **BBS-PC!** always updates the user records properly. When a user drops carrier, they do not see this information.

Function 101 - Display Current Menu

Parameters: N/A

Description: This function re-displays the current menu. As with the menus supplied with **BBS-PC!**, you may press a ? at any menu prompt to display the menu. For example:

Main Func (? for menu):

This function is discussed further in Chapter 8, *Menu Customization*.

Function 102 - Return Specified Levels

Parameters: N/A

Description: This function returns to a previous menu. The menu item must specify the number of levels to return. Also, the menu items which brought you to a menu must have used Function 104 (*Call Another Menu*). An example of this is:

E: Exit back to main menu

which is found on the E-Mail menu.

This function is discussed fully, with examples, in Chapter 8, *Menu Customization*.

Function 103 - Return Top Level

Parameters: N/A

Description: This function works like Function 102 (*Return Specified Levels*), except the user returns to the menu from which Function 104 (*Call Another Menu*) is first used. One menu example is:

E: Exit back to main menu

found on the Bulletin menu. A specified level may not be entered, this function always returns to the top menu level. This function is ideal if you create an elaborate system of menus; the user can quickly return to the main menu.

This function is discussed fully, with examples, in Chapter 8, *Menu Customization*.

Function 104 - Call Another Menu

Parameters: N/A

Description: This function allows the user to go to another specified menu. One example is:

F: File transfer menu

found on the Main menu. This works much like a GOSUB in BASIC. That is, you can use this function to move to a menu and always have Functions 102 (*Return Specified Levels*) and Function 103 (*Return Top Level*) available. When creating sophisticated menus, these functions are much preferred over constantly using Function 105 (*Goto Another Menu*).

Be careful of how often you use this function as requires more memory to keep track of successive levels of menus. Unless you have the means to increase your computer's stack size, don't exceed 10 levels of menus.

This function is discussed fully, with examples, in Chapter 8, *Menu Customization*.

Function 105 - Goto Another Menu

Parameters: N/A

Description: This function passes complete control to a specified menu. This new menu becomes the top level if 104 (*Call Another Menu*) is used. One example is:

E: End this call (goodbye)

found on the main menu. From the menu called with this function, you may not return to a previous or top menu level, since the menu is now considered the top level.

Unlike Function 104 (*Call Another Menu*), this function does not use stack space. Think of it as a GOTO in BASIC. Though Functions 102 (*Return Specified Level*) and Function 103 (*Return Top Level*) are not available, it has its own particular uses.

This function is discussed fully, with examples, in Chapter 8, *Menu Customization*.

Function 106 - CLS, Type a File

H: Help with downloading files

Parameters: N/A

Description: This function clears the user's screen and types a formatted text file. The text file must be located in the same drive/path from where **BBS-PC!** is loaded. The text file to type is entered as part of the menu item. Read Chapter 8 for more information.

Bulletins and help files are often used to provide the user with additional information about the system. You may think of bulletins as permanent messages, available from anywhere on the system.

At the end of each page a *More* prompt pauses the display.

Read the section in Chapter 5 titled *Text Files* for more information on formatted and unformatted text files.

Function 107 - Type a File

Parameters: N/A

Description: This function works the same as Function 106 (*CLS, Type a File*), except the screen is not cleared before the text file displays.

Function 108 - CLS, Type a File Without " - More (Y)/N/NS?"

Parameters: N/A

Description: This function works the same as Function 106 (CLS, Type a File), except the More prompt does not pause the display.

Function 109 - Type a File Without " - More (Y)/N/NS?"

Parameters: N/A

Description: This function works the same as Function 107 (Type a File), except the More prompt does not pause the display.

Function 110 - Change Menu Set

Parameters: N/A

Description: This function allows the user to switch to an alternate menu set. The menu item must pass the menu set number as a parameter.

Alternate menu sets allow you to have one set of menus for users of 40 column screens and others for 65 and 80. In addition, ANSI color and IBM graphics menus can be displayed.

Whenever alternate menu sets are employed, make sure the menus exist, or the user sees %% Disk error 500 %% messages.

This function is discussed fully, with examples, in Chapter 8, *Menu Customization*.

Function 111 - Execute External Program

Parameters: Program name

Description: This function temporarily exits BBS-PC! and executes a program. The menu item can specify the program name

or the user may enter it as part of the menu command.

If the menu item includes the program name, only that program can be run. If there is no program name and the user does not enter one as part of the menu command, *E PROGRAM*, then this function works like Function 43 (*Exit to DOS*).

IBM USERS

Make sure the statement `DEVICE = ANSI.SYS` is NOT in your `CONFIG.SYS` file or the remote user cannot see output from the program.

If you try to execute a program which is not 100% BIOS compatible, it fails to display anything to the remote user.

The Ctrl-C key is disabled and cannot be used to abort a program, it must be exited normally.

To return to **BBS-PC!**, quit the program. Make sure you're in the same drive/path as **BBS-PC!** before doing this or an error occurs. **BBS-PC!** can execute .COM, .EXE and .BAT programs.

Systems which are not 100% BIOS compatible may exhibit problems such as Carrier loss when this function is selected, disconnecting them, or a warm boot of the entire system. These are not problems due to anything configured with **BBS-PC!**, it is just an unfortunate limitation for some computers.

This function is highly system dependent. The IBM implementation of this function entails installing a driver at the time this function is executed which handles the routing of TTY input and output to the serial device. This driver is also responsible for monitoring carrier. If carrier is lost or a user's time is exceeded, control is returned to **BBS-PC!** where they are automatically logged off.

Because of the intimacy with the system software to provide these features and security, some IBM compatibles may encounter

problems when executing this function.

AMIGA USERS

Technical difficulties with the Amiga operating system prohibit the use of this function. Micro-Systems Software apologizes for any inconvenience.

Function 112 - Questionnaire

Q: Questionnaire

Parameters: N/A

Description: This function is used to ask questions of a user and store their responses in an ASCII text file, which can later be typed with Function 106 (*CLS, Type a File*).

A questionnaire is structured much like a menu, with a maximum limit of 20 lines. Questionnaires are comprised of the following commands:

Qa = question.qa, question.txt

Display = "Please answer the following question:"

Question = "How do you feel? ", x

Endqa

Qa - Marks the beginning of the questionnaire. The first parameter is the questionnaires name which this function calls. The second parameter is the name of the text file where all user replies are stored. All new replies are stored at the end of the text file. Only the user's responses are saved, not the prompts themselves.

Display - This command displays information to the user, but does not prompt for user input. More than one *Display* command may be used, space permitting.

Question - This command displays a prompt to the user, usually in the form of a question. The parameter *x* determines the type of response to expect from the user and how to proceed:

0 - Displays the question only. The same as the *Display* command.

1 - Displays the question and prompts the user for a reply.

2 - Displays the question and prompts the user for a *Y/N* response. If *N*, the questionnaire cancels and no replies saved.

3 - Displays all previously entered user responses and prompts for a *Y/N* response. If *N*, the user returns to the top of the questionnaire and starts again.

4 - Prompts the user for a *Y/N* response. If *N* then the user starts again from the top of the questionnaire.

5 - Displays the question and stores all input until Return is pressed on a blank line. This works well for essay-type responses.

More than one *Question* command may be used, space permitting.

Endqa - Marks the end of the questionnaire. All replies are stored in the specified text file and the user returned to the menu.

Each questionnaire may have as many questions and replies as the questionnaire size permits. After subtracting the beginning and ending questionnaire commands, 18 lines are available.

Make sure your text editor doesn't save text files with the Ctrl-Z EOF (end of file) marker, or you won't be able to view new additions to the text file.

After the questionnaire is ready, you process it with **BBSMENU**.

A working example for this function is found in Chapter 8, *Menu Customization*.

Function 113 - Ballot

V: Voting Booth

Parameters: N/A

Description: This function allows users to "vote" on items of interest. Choices can be a single number or letter. Ballots are anonymous, but the results can be shown to all users.

Each ballot can be a maximum of 20 lines and is comprised of the following commands:

Ballot = voting.bal

Question = "Are you For or Against ballots?"

Choice = C, "C: One possible Choice"

Endballot

Ballot - Marks the beginning of the ballot. The filename indicates the ballot name and where user responses are stored. The ballot file is processed with **BBSTALLY** to create a comprehensive total of all the users ballots. Please refer to Chapter 10 for more information about **BBSTALLY**.

Question - This command displays the question about which the user is voting. More than one *Question* command may be used, space permitting.

Choice - This command prompts the user for a response. A choice can be either a single number or character. As many *Choice* commands may be used as needed, space permitting.

Endballot - Marks the end of the ballot. The user's reply is stored in the ballot file and the user returned to the menu.

Each ballot may have as many questions and choices as the maximum ballot size permits. After subtracting the beginning and ending commands, 18 lines are available.

After the ballot is ready, you process it with **BBSMENU**. A working example for this function is found in Chapter 8, *Menu Customization*.

CHAPTER 8

BBS-PC! MENU CUSTOMIZATION

Every function in **BBS-PC!** is accessed through a menu item. Almost everything displayed by **BBS-PC!** is either a menu item, or the result of a menu item selection.

BBS-PC! provides a sample set of menus to get you started. Rather than force you to use just one set of menus, **BBS-PC!** allows you to create your own. It's this type of flexibility which gives every **BBS-PC!** a unique look.

MENU USES

Through the use of menus, you can create an illusion of a series of separate message bases, one large message base or anything in between.

Menu items can not only be hidden from certain users, they can control to what degree a function may be used. This is known as privilege levels and section masking. These items are covered soon.

Menus are also responsible for the "theme" of your system. One enterprising Sysop wrote a text adventure game using **BBS-PC!** menus.

Creating menus is accomplished by first designing them with a text editor then compiling them with **BBSMENU**. To design a menu, you need to learn about menu structures.

MENU STRUCTURES

A menu is comprised of the following items:

Menu statement
Title statement
Item statement

Iret statement

Endmenu statement

Below is a sample of the main menu supplied with **BBS-PC!**. Look in your **MENU.TXT** file for a complete listing of all the sample menus provided with **BBS-PC!**.

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
item = E, "I E: End this call (goodbye)      I", 10-, 6, 100
item = L, "I L: Leave a message             I", -, 3, 9
item = R, "I R: Read messages               I", -, 2:-0, 11
item = S, "I S: Scan message headers        I", -, 2:-0, 13
item = T, "I T: Time used during this call  I", -, 6, 6
title = "+-----+"
item = A, "A: Add yourself to user files", -5, 7, 3:10
item = ?, I, -, 6, 101
endmenu
```

More than one Title, Item and Iret statement may be used within a menu. Menus can be as long as 50 lines or 4000 bytes, whichever comes first.

The next sections examine each part of menu statement.

MENU STATEMENT

A menu statement consists of four items, each separated by a comma. Spaces after the comma are optional.

Declaration Field

This is the declaration field and marks the beginning of a menu. The name is the filename under which **BBSMENU** stores the compiled menu and the name to which the menu is always referred.

menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1

This is the declaration field and marks the beginning of a menu. The name is the filename under which **BBSMENU** stores the compiled menu and the name to which the menu is always referred.

The *-0* in the menu name indicates a menu set of *0*. Alternate menu sets are named *BBS-1.MEN*, *BBS-2.MEN* and so forth. *BBS-0.MEN* is the default menu displayed by **BBS-PC!**.

Menu names should not exceed 8 characters, a (.) period and the 3 letter *MEN* filename extension.

Menu Prompt

This is the prompt displayed to the user. From the menu prompt a user enters the menu selection. The menu prompt must be surrounded by quotes.

menu = BBS-0.MEN, "Main Func (? for menu):", 1, 1

Within the menu prompt, you may display any of several options:

zD - Displays the current date.
zM - Displays the minutes remaining to the user.
zR - Displays the hours and minutes remaining to the user.
zT - Displays the current time.

To display the number of minutes remaining to the user, enter:

menu = BBS-0.MEN, "%M mins Main Func (? for menu):", 1, 1

which appears to the user as:

43 mins Main Function (? for menu):

Display Option

The display option determines how a menu is displayed to a user

when the menu is called.

menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1

0 - Never display the menu. Used for one line menus, such as a yes or no prompt.

1 - Display the menu automatically for Novices.

2 - Display the menu automatically for all users.

Character Input

This option determines how the user may select the menu item:

menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1

0 - Normal menu input. With this option a user enters the menu command and presses Return. Commands from the menu prompt may include a number of characters. Such as chaining menu items: *RM;RTN;F;E*.

1 - Hot keys. This option avoids having the user wait until the menu prompt appears before selecting an item. As the menu scrolls by, a menu item can be selected. Commands from the menu prompt may include more than one character.

2 - Hot keys, hot input. This option works the same as 1, except only one letter commands can be entered from the menu prompt. A user presses a key and **BBS-PC!** automatically process the command without waiting for the Return key. No menu chaining is possible from the menu prompt with this option.

TITLE STATEMENTS

Title statements are used to create borders for menus or display information to the user.


```
title = "+-----+"
title = " Select a menu item and press Return"
```

The title statement must be surrounded by quotes. A title statement with two quotes creates a blank line. More than one title statement may be used in a menu.

Title statements can be followed by a privilege range to display for only certain users. This is discussed under *Privilege Range*, in the next section.

ITEM STATEMENTS

An item statement determines a number of things: Whether the user may select the option, if they even see the menu item and the extent to which the menu's function performs.

```
item = E, "! E: End this call (goodbye)      !", 10-, 6, 100
item = R, "! R: Read messages                !", -, 2:-0, 11
```

Key

The item statement defines the keyboard command which is used to access the menu item. A key may only be one alphanumeric character.

Item = E, "! E: End this call (goodbye) !", 10-, 6, 100

In the above example, the user types *E* to exit the system.

Display Description

The display description determines how the message item appears to the user.

item = R, "! R: Read messages !", - , 2:-0, 11

Display descriptions must be surrounded by quotes. The above menu item appears to the user as:

! R: Read messages !

These next display descriptions have specific uses:

! , - Hides the menu item from the user. Not to be confused with the exclamation points found within quotes for the sample menus. No quotes are to surround this exclamation point. At a normal menu prompt, a user can press Return to see a list of available commands on the menu. Some systems purposely hide menu items which users can access. While this display description hides the menu item, it does not suppress a CR (carriage return). In the sample menus provided with **BBS-PC!** this hides the ? used to re-display a menu.

"", - Displays a blank line.

"", - Suppresses a CR. Used when creating the extra items needed for double-width menus. Examples are found in the section titled *Creating a Menu*.

The maximum number of characters for a display description is 255. This should be more than enough for your menu requirements.

Privilege Range

The privilege range determines which users may access the function. If only one menu item per line is used, the privilege range specifies whether the user even sees the menu item.

item = E, "! E: End this call !", 10-, 6, 100

item = E, "! E: End this call !", -9, 6, 105, EXIT-0.MEN

A user with a privilege level of 10 or greater selects the first menu item to exit the system. If the user doesn't have at least a privilege level of 10, then the menu item does not even appear.

Any user with a privilege level of 9 or less sees the second example. Instead of exiting the system, they are taken to another menu.

These are perfect examples of how privilege ranges determine not only who sees a menu item, but what happens when the menu item is selected. One directly exits the system while the other displays an exit menu for new users.

Privilege ranges can include (0-40), for just those users who fall in that range or (-) for all users, regardless of their privilege level.

Access Level

The access level is like the privilege range. If the user has the required privilege range, but not the access level, the menu item still doesn't appear. An access level consists of up to 2 parts separated by a colon (;). The first number is the access level followed by an optional colon and section numbers.

item = R, "R: Read messages", -, 2:-0, 11

The access level also controls how a function works when selected. This is called section masking.

There are eight levels of access:

0 - Requires specified section access. A user must have some type of access to the section specified. If so, the menu item is available, regardless of whether the user has masked themselves out of the section number.

- 1** - Requires specified access with mask. This works almost the same as access 0. When a user masks themselves out of a section number, then the menu item is not available.
- 2** - Requires RD access with mask. The user must have RD message access to a section. The specified function only applies to those sections the user has not masked out.
- 3** - Requires WR access with mask. The user must have WR message access to a section. The specified function only applies to those sections the user has not masked out.
- 4** - Requires DN access with mask. The user must have DN access to a section. The specified function only applies to those sections the user has not masked out.
- 5** - Requires UP access with mask. The user must have UP access to a section. The specified function only applies to those sections the user has not masked out.
- 6** - No section access required. A menu item with this access level is available to all users.
- 7** - Requires SYSOP password, if set. If a SYSOP password is not entered in Function 34 (*System Defaults*), the menu item does not prompt the user and functions as if the password was entered. If a user enters an incorrect password, the menu prompt appears.

item = R, "R: Read messages", -, 2:-0, 11

In this example, the user can only read messages in the sections which they have not masked out and have RD access. In addition, the section mask -0 forces the function to ignore section number 0. In the menus provided with **BBS-PC!**, section 0 is the E-Mail section for private messages. This prevents a user from reading another person's private mail.

Section masking forces a function to apply only to specified

section numbers. This is how the illusion of separate message bases comes about. Separate Read message functions found on separate menus, each allowing a user to read messages from a particular section number.

Masking works much the same as those found in Chapter 7, Function 24 (*Change a User*).

Here are a few examples of access levels with section masking. Each assumes the user's privilege range is high enough to display the menu item.

0:0 - Executes the function specified by the menu item as long as the user has some type of access to section number 0, regardless if they masked themselves out.

The following examples assume a user has not masked themselves out of the section numbers specified.

1:1AC - Executes the function as long as the user has access to section numbers 1, A or C. This function applies only to these three section numbers.

2:12 - Executes the function if the user has RD access to section numbers 1 or 2. This function applies only to these two section numbers.

3:C - Executes the function as long as the user has WR access to section C. If Function 9 (*Leave a Message*) was executed, the message is automatically stored in section C. If more than one section number was specified, those would be the only sections to which the message could be stored. That is, if the user has WR access.

4 - Executes the function as long as the user has DN access to any section number. The function applies only to those section numbers to which the user has DN access.

5:-F - Executes the function as long as the user has UP access to any section except F. The function applies to any section to which the user has UP access, except section F.

6 - Executes the function regardless of what type of RD, WR, DN or UP access the user has. No section masks are used with this access level.

7 - Prompts for the SYSOP password entered in Function 34 (*System Defaults*). If the user enters the correct password, the function is executed. No section masks are used with this access level. If no SYSOP password is available, the user is not prompted and the menu item executes.

With access levels, there is no need to mask in one section and mask out another (as in 2:23-0), since when a section number is masked-in all others are masked out automatically. Therefore there is no need for the -0 in this sample access level.

When a single section number is used in a mask, the function applies only to that section number. If more than one section number is specified in a mask, the function is available if the user has access to either the first section number OR the second section number and so forth. Of course, the function only applies to the section mask specified.

Function

The last part of a menu item is the function to be executed, along with any parameters.

```
item = E, "I E: End this call          I", 10-, 6, 100
item = F, "I F: File Menu              I", 10-, 104, FILE-0.MEN
item = N, "I N: Threaded new messages I", 10-, 9, tn
```

The first example executes Function 100 (*Exit System*). Since this function does not accept any parameters, none are entered.

The second example executes Function 104 (*Call Another Menu*). This function requires the menu name to call. Whenever a function requires a parameter, such as a filename, separate the function number with a comma and enter the parameter. A parameter may no longer than 12 characters.

In example 3, the read message function is executed with the parameters *TN* to read threaded new messages.

The function can also be used to increase a user's privilege level. For example:

item = A, "A: Add yourself to user files", -5, 7, 3:10

When a user selects this menu item, Function 3 (*Register/Add to Membership File*) is executed. Immediately after the function completes, the user's privilege level is increased to 10. This is the only time a colon is used in a function portion of a menu item.

Be careful of when this is used. The function is not checked to see if it was completed properly, only that it is selected. A user may select the menu item, abort and have the higher privilege level.

The new privilege level is stored in the user's record. The privilege level boost can be used to hide a menu item after it is selected or reward a user with increased privileges. Look at the privilege range on the example above. The function can only be selected once by the user. Afterwards, the user's privilege level is higher than the privilege range specified by the menu item.

CHAINING MENU COMMANDS

Whether or not a function supports a parameter, you may force a menu item to chain commands. Much like you chain menu commands

at a menu prompt, you may do the same in a menu item. For example:

```
item = E, "I E: End this call (goodbye)!", 10-, 109, BYE.TXT;G
item = G, "\"\, -, 6, 100
```

The user selects item *E* to exit the system. Instead of exiting, **BBS-PC!** types the text file named BYE.TXT. When that function completes, item *G* is executed.

Notice the use of the "\" for the item description in the second menu item. This prevents the item from placing a blank line in the menu without displaying the item to the user. In effect, the function to exit the system, Function 100, is hidden from the user. For those users who know better, they can type *G* and skip the text file.

Menu items may be chained as long as the parameter field does not exceed 12 characters. When a menu item chains commands, the commands must follow the function's parameters. If a function does not support a parameter, enter a comma (,) and then the chain commands.

IRET STATEMENTS

The iret statement works identically to the item statement with one exception. After the function completes when called from an iret statement, **BBS-PC!** returns one menu level. As a quick example. If you select the help menu from the main menu:

```
item = H, "H: Help menu ", -, 6, 104, HELP-0.MEN
```

then typed the help bulletin below, the iret statement would automatically return you to the main menu. For this function to work properly, the main menu must use Function 104 (*Call Another Menu*).

```
iret = H, "H: Help bulletin ", -, 6, 106, HELP.TXT
```


If Function 105 (*Goto Another Menu*) called the help menu, then when the irect statement tried to return one menu level, it would fail. This results in disconnecting the user from the system. Be careful, as this could be perceived by some users as a cruel joke by the Sysop.

With menu command chaining, there isn't as much need for the irect statement as in the past.

ENDMENU STATEMENTS

The endmenu statement marks the end of a menu. This command must be here or **BBSMENU** has no way of knowing when to finish compiling.

COMMENT STATEMENTS

In your menu file, any line which begins with a period is considered a comment. Comments are ignored by **BBSMENU** and are there to help identify a menu.

```
.### MAIN MENU ###

menu = BBS-O.MEN, "Main Func (? for menu): ", 1, 1
title =  "+-----+"
item = E, "I E: End this call (goodbye)          !", 10-, 6, 100
item = L, "I L: Leave a message                  !", -, 3, 9
```

CREATING A MENU

A menu in **BBS-PC!** can be as long as 50 lines or 4000 bytes. Comment lines and blank lines do not count.

The first change you'll make is to the sample menus provided with **BBS-PC!**. For this, you'll need a text editor which does not store high bits or use Ctrl-Z as an EOF (end of file) marker.

The main menu has one somewhat serious problem: It does not allow a Sysop to read all the messages in the E-Mail section. Some users may think they have a right to privacy. The fact is, you are responsible for whatever happens on your system. If two users are exchanging long-distance telephone access codes using your E-Mail section, you could face serious penalties.

Look at the current Read message menu item:

item = R, "R: Read messages ", - , 2:-0, 11

You can see it is masking out the E-Mail section (section number 0). If you don't want your users reading another's E-Mail, duplicate the menu statement.

Take a look at the original statement and make the following change to the privilege level:

item = R, "R: Read messages ", 0-254, 2:-0, 11

Now all your users except the Sysop or someone with a privilege level of 255 sees this menu item.

Make the second read message item look like this:

item = R, "R: Read messages (Sysop) ", 255-, 2, 11

Three things were changed. First, the menu item indicates there is a separate read message function for the Sysop. Second, the privilege level now requires an access of 255 or greater. Third, the section mask of -0 is removed from the access level.

Now the Sysop may read any message in the system. Since **BBS-PC!** doesn't display menu items to users unless they have the correct privilege level, only ONE read message function appears to the Sysop and the users.

Just because the change is made to the MENU.TXT file doesn't mean

that's how it appears in **BBS-PC!**. You must first compile the **MENU.TXT** file with **BBSMENU**. Refer to the next section to learn how to compile a menu.

COMPILING A MENU

BBS-PC!'s menus are first entered in a text editor, following the format shown in previous sections. To make your menus readable to **BBS-PC!**, they must be compiled.

The source to your menus can all be in one large text file, like **MENU.TXT**, or in a series of smaller text files. You may even separate each menu into a separate text file. This is up to you.

When you're using a text editor, make sure each line ends in either a LF (line feed) only or CR + LF (carriage return plus line feed). If a text editor stores in CR only, a *Line too long* message appears when **BBSMENU** is run. Chances are very slim that your text editor saves in CR only.

To run **BBSMENU** you type the command followed by the menu source text file. For example:

BBSMENU MENU.TXT

BBSMENU compiles the source text one line at a time, displaying each line on the screen. Comments and blank lines are ignored. Any errors in the source text causes it to stop compiling and display an error message. If your menus are split into separate text files, run **BBSMENU** on each text file.

The most common errors are:

Syntax errors. Generally they are one of two types: Either you neglected to place a comma after each field, or you used a period instead of a comma. These two account for about 75% of the errors encountered.

Another error is neglecting to place display statements within quotes. The opening quotation mark is usually there, but the closing quote is missing. Failure to have quotation marks at both the beginning and ending of the display statement is guaranteed to create havoc during the compiling of a source text.

Another is attempting to put too many items and titles in a menu. **BBSMENU** is a limited, special purpose compiler. You are limited to 50 lines per menu or a maximum of 4000 characters. More than this causes the compiler to abort with an error message.

When the compiler reaches each endmenu statement, it writes the menu to disk using the menu name. Be sure you run **BBS-PC!** and check each option on every menu to make certain they operate as you intended. Incorrect function numbers, access levels, display options, privilege levels, etc., are not corrected by **BBSMENU**. A simple typographical error in entering a function number can ruin the best of days if not tested before going on line. Imagine how you would feel if you entered Function 23 (*Delete a User*), instead of Function 13 (*Scan Messages*) and a user wanted to Scan the message headers. They would see *User name:* and likely would type in their own name. This makes for a very unhappy user.

While **BBS-PC!** boasts the tightest security possible for an electronic bulletin board system, poorly designed menus can inadvertently give a user access to functions they should not have. **Always test your new menus carefully before allowing your users access to the system!**

GRAPHICS AND COLOR MENUS

BBS-PC! allows you to create menus which display IBM graphics and ANSI colors. For your callers to display these codes on their screen, they must have a telecommunications package capable of emulating an ANSI or VT-100 terminal. Their communications parameters must be set to 8N1 or they will see many strange characters on their screen.

There are several public domain graphics editors available to help you create your menus. If you don't have a graphics editor, you can enter the graphic or color codes directly into the menu. This is done with the backslash character (\) followed by the graphics character's decimal code. Graphics codes can be entered anywhere in a menu, providing the codes are entered between quotes. This includes the display description for a title, item or irt statement and the menu prompt. For example:

```
menu = graph-0.menu, "Press ? : ", 1, 1
title = "ASCII Code    - Graph Character"
title = ""
title = "Decimal 128   - \128"
title = "Decimal 129   - \129"
title = "Decimal 130   - \130"
endmenu
```

The example above can be used to display all the IBM graphics characters (decimal 128-255). To display a backslash in a menu, enter a \92. Amiga users can display IBM graphics only if the IBM font is present in their Fonts sub-directory.

ANSI SCREEN CODES

Both IBM graphics and ANSI color may displayed in menus. In addition to the ANSI color, ANSI screen display codes are also supported:

- 0 - All attributes Off (normal white on black).
- 1 - Bold On (high intensity)
- 4 - Underscore On (Amiga and IBM Monochrome Display only)
- 5 - Blink On
- 7 - Reverse video On (Amiga displays italics)
- 8 - Cancelled On (visible)

ANSI COLORS

- 30 - Black foreground
- 31 - Red foreground
- 32 - Green foreground
- 33 - Yellow foreground
- 34 - Blue foreground
- 35 - Magenta foreground
- 36 - Cyan foreground
- 37 - White foreground
- 40 - Black background
- 41 - Red background
- 42 - Green background
- 43 - Yellow background
- 44 - Blue background
- 45 - Magenta background
- 46 - Cyan background
- 47 - White background

The ANSI codes and colors are placed in the menu in the same manner as the IBM graphics codes. For example:

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "\27[44;33m+-----+"
item = E, "! E: End this call (goodbye)      !", 10-, 6, 100
item = L, "! L: Leave a message             !", -, 3, 9
item = R, "! \27[5mR: Read messages\27[0;44;33m !", -, 2:-0, 11
item = S, "! S: Scan message headers        !", -, 2:-0, 13
item = T, "! T: Time used during this call  !", -, 6, 6
title = "+-----+"
item = A, "A: Add yourself to user files", -5, 7, 3:10
item = ?, !, -, 6, 101
endmenu
```

The `/` signals the start of an ANSI code, the `;` (semi-colon) separates several colors and the `m` terminates the ANSI sequence.

The first title statement contains the color codes to display the

menu with a blue background and a yellow foreground.

Notice the codes next to the read message item causes the *Read messages* text to blink. On an Amiga, it appears in italics. ANSI codes and colors act as toggles. After you turn something on, it must be turned off. At the end of the *Read messages* text, the codes to cancel the blinking are entered, along with the menu colors again.

It is always a good idea to create the standard menus first and add the color escape and graphics codes. While they cause the menu to not align properly, when compiled they'll be correct.

MENU EXAMPLES

The first portion of this section shows you some menu examples and explains why things were done a certain way. The next portion displays examples for specific functions. You may refer to the MENU.TXT file for other examples.

As a **BBS-PC!** Sysop, you may apply for Section E access on the **BBS-PC! HQ** bulletin board system (305-790-0774). There, you will find additional menu examples provided by other Sysops.

Clearing the Screen

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "\12+-----+"
item = E, "I E: End this call (goodbye)          I", 10-, 6, 100
item = L, "I L: Leave a message                  I", -, 3, 9
title = "+-----+"
item = ?, I, -, 6, 101
endmenu
```

Notice the \12 in the first title statement. If some of your users have different clear screen codes, you can create alternate menu sets, each having a different clear screen code.

Ringin a Bell

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
item = E, "I E: End this call (goodbye)      !", 10-, 6, 100
item = L, "I L: Leave a message              !", -, 3, 9
item = R, "I R: Read messages                !", -, 2:-0, 11
title = "+-----+"
item = A, "\7A: Add yourself to user files", -5, 7, 3:10
item = ?, 1, -, 6, 101
endmenu
```

The \7 causes the user's bell to ring each time item A appears on the menu. This is a good way to draw someone's attention to a menu item. If you're using color and graphics, the menu item can be made to blink, or display in a different color.

Displaying a Two-Line Menu Prompt

```
menu = BBS-0.MEN, "%R\13Main Func (? for menu): ", 1, 1
title = "+-----+"
item = E, "I E: End this call (goodbye)      !", 10-, 6, 100
item = L, "I L: Leave a message              !", -, 3, 9
item = R, "I R: Read messages                !", -, 2:-0, 11
title = "+-----+"
item = ?, 1, -, 6, 101
endmenu
```

The %R displays the user's remaining time in hours and minutes. The \13 sends a carriage return to display the rest of the menu prompt on the line below.

Leave a Message to Sysop

This next menu item applies if you have section number C defined for Sysop comments only and new users have WR access to C.


```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
item = E, "! E: End this call (goodbye)      !", 10-, 6, 100
item = L, "! L: Leave a message to Sysop    !", -10, 3:C, 10, ;E
item = R, "! R: Read messages                !", -, 2:-0, 11
title = "+-----+"
item = ?, 1, -, 6, 101
endmenu
```

When a new user leaves a message, it is stored in section number C and they are automatically logged off the system.

Often, a troublesome new user may call a system and leave a series of obscene messages in an open message section for everyone to read. Taking the appropriate precautions, such as the example above, prevents this from happening. New users rarely bother when the only person who can read the message is the Sysop.

Double Column Menus

Wide menus can be implemented for users with 80 column screens. Larger menus often allow more items per menu and make the menu look more attractive. There are two ways to create menus with multiple columns. This is the first:

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
title = "! System Options | Message Base !"
title = "+-----+"
item = B, "! B: Bulletins | R: Read messages !", -, 6, 104,
item = C, "! C: Chat w/Sysop | S: Scan messages !", -, 6, 7
item = E, "! E: Exit System | D: Delete messages !", 10-, 6, 100
item = L, "! N: Section names | L: Leave a message !", -, 3, 9
title = "+-----+"
item = R, "", -, 2, 11
item = S, "", -, 2, 13
item = D, "", -, 2, 14
```

```
item = L, "\, -, 3, 9
item = ?, !, -, 6, 101
endmenu
```

BBS-PC! only allows one item statement per line. Since the menu displays two menu selection for each line, the other item statements must be entered at the end of the menu. Notice the message base functions each use "\ as the display description.

Here's another, possibly easier way to create a multi-column menu:

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
title = "! System Options | Message Base !"
title = "+-----+"
title = "! B: Bulletins | R: Read messages !"
title = "! C: Chat w/Sysop | S: Scan messages !"
title = "! E: Exit System | D: Delete messages !"
title = "! N: Section names| L: Leave a message !"
title = "+-----+"
item = B, "\, -, 6, 104, BULL-0.MEN
item = C, "\, -, 6, 7
item = R, "\, 10-, 2, 11
item = S, "\, -, 2, 13
item = D, "\, -, 2, 14
item = L, "\, -, 3, 9
item = ?, !, -, 6, 101
endmenu
```

The main portion of the menu is all title statements. After the title statements, each menu item is listed using "\ as the display description. This prevents extra lines from appearing in the menu.

While the second example is easier to use, it does take more lines. Each Sysop has their own personal preference for creating menus.

When multi-column line menus are used, it is more difficult to use the privilege range to display menu items only to certain users. If two items are displayed on a menu and one is accessible to the user, but hidden because of the privilege range, the user may be able to select the item, but they will not know it is available.

Separate Message Bases

This next example considers section number 3 defined as IBM messages and section number 8 as Amiga messages.

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
item = E, "I E: End this call (goodbye)      I", 10-, 6, 100
item = L, "I L: Leave a message              I", -, 3, 9
item = I, "I I: Read IBM messages            I", -, 2:3, 11
item = A, "I A: Read Amiga messages          I", -, 2:8, 11
item = S, "I S: Scan message headers         I", -, 2:-0, 13
item = T, "I T: Time used during this call   I", -, 6, 6
title = "+-----+"
item = ?, 1, -, 6, 101
endmenu
```

Through the use of section masking, **BBS-PC!** creates the illusion of a separate message base. When item I is selected, the user may only read messages in section number 3 and only if they have RD message access. The same principle applies for item A.

To complete the illusion of a totally separate message base, you would create separate menus that display an IBM or Amiga menu. On the new menu, place a read message function for that section number.

Alternate Menu Sets

Alternate menu sets can be used for a variety of purposes. You

may have a set of menus for display on wider column terminals, another for color and graphics, and yet another set designed specifically for use by the Sysop. Take the following example:

```
menu = BBS-0.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
item = C, "I C: Switch to alternate menu set  I", 10-, 110, 1
item = E, "I E: End this call (goodbye)      I", 10-, 6, 100
item = L, "I L: Leave a message              I", -, 3, 9
item = R, "I R: Read messages                I", -, 2:-0, 11
item = S, "I S: Scan message headers        I", -, 2:-0, 13
item = T, "I T: Time used during this call  I", -, 6, 6
title = "+-----+"
item = ?, 1, -, 6, 101
endmenu
```

When item *C* is selected from the main menu, this new menu appears:

```
menu = BBS-1.MEN, "Main Func (? for menu): ", 1, 1
title = "+-----+"
title = "I System Options | Message Base  I"
title = "+-----+"
item = B, "I B: Bulletins | R: Read messages I", -, 6, 104,
item = C, "I C: Chat w/Sysop | S: Scan messages I", -, 6, 7
item = E, "I E: Exit System | D: Delete messages I", 10-, 6, 100
item = L, "I N: Section names| L: Leave a message I", -, 3, 9
title = "+-----+"
item = R, "", -, 2, 11
item = S, "", -, 2, 13
item = D, "", -, 2, 14
item = L, "", -, 3, 9
item = ?, 1, -, 6, 101
endmenu
```

The menu set can always be identified by the *-x* in the menu name, where *x* is the menu set number. In the example above, **BBS-PC!** switched from *BBS-0.MEN* to *BBS-1.MEN* when Function 110 (*Change*

Menu Set) called menu set 1. Any menus which *BBS-1.MEN* calls should also have the *-1* menu name.

If more than one menu set is available, create a menu which lists all the different menu sets. Users can select a menu set no higher than 9, though the Sysop can go as high as desired.

Function 110 (*Change Menu Set*) always requires a menu set parameter and returns to the top menu level after executing. If the top menu level doesn't have an alternate menu set, %% *Disk error 500* %% messages appear.

The following contains examples for some functions. When you create you own menus, go ahead and experiment.

Function 15 - Print File Catalog

This menu item passes the */S* parameter to display the file catalog sorted alphabetically by file name.

item = C, "! C: Display file catalog (sorted) !", -, 4, 15, /S

Whenever a menu item uses a function parameter, the user may not enter a parameter from the menu prompt.

Function 16 - Browse Files

This menu item passes the */0* parameter to browse Directory/0 where new files are entered into the catalog. The privilege range for this menu item only allows the Sysop access to the function.

item = B, "! B: Browse Directory/0 !", 255-, 4, 16, /0

Function 45 - Display a Catalog of New Files

This next menu item passes a date parameter to display a list of new files uploaded from a specific date. After the function executes, menu item *D* to download a file is selected next.

item = N, "I N: New files since October !", -, 4, 45, 10/01/87;D

Function 111 - Execute External Program

This next menu item is available only to IBM users. The BBS-PC! statistics program, **BBSINFO** processes the datafiles to create a comprehensive listing of BBS-PC!'s system activity. Not only is this menu item restricted to a user with a privilege level of 255, the menu item prompts for the SYSOP password.

item = E, "I E: Execute BBSINFO !", 255-, 7, 111, BBSINFO

Function 112 - Questionnaire

This example displays a sample questionnaire used to take an order placed by a user.

item = P, "I P: Place an order !", -, 6, 112, ORDER.QA

The menu item above calls the following questionnaire:

```
qa = order.qa, orders.txt
display = "The following information shall remain confidential."
display = ""
question = "Mailing address: ", 1
question = "City, State and Zip: ", 1
question = "Phone number (day): ", 1
question = "Item you desire to order: ", 1
display = "Method of payment. Include # and exp. date."
question = ">", 1
```

```
display = ""
display = "If you desire a more costly type of shipping like"
display = "next day air or Federal Express, you will be"
display = "charged accordingly. Shipping instructions or"
display = "comments: "
question = ">", 5
display = ""
question = "Is the above information correct? ", 3
question = "Do you wish this order to be placed? <y/n> ", 2
endqa
```

Function 113 - Ballot

This function allows a user to reply to a ballot. Once the user "votes", the menu item no longer appears. This prevents a user from "stuffing the ballot" by voting more than once.

item = V, "V: Voting booth!", 20-20, 6, 113:21, VOTE.BAL

If you have several classes of users, you can create a separate ballot item for each privilege range. Then, as each type of user votes, their privilege level prevents them from voting again.

You can use Function 29 (*Update User Defaults*) to later return each set of user's privilege levels after changing the ballot to allow them to vote again.

CHAPTER 9 BBS-PC! IN A MULTI-USER ENVIRONMENT

IBM USERS

BBS-PC! allows two or more people access to the system simultaneously, with each user sharing the same datafiles. This is sometimes referred to as multi-user capabilities.

The disk on which **BBS-PC!** is shipped does not contain a multi-user version. Contact Micro-Systems Software, Inc. for details on receiving one of the multi-user versions. PC-DOS or MS-DOS 3.1 or greater is required.

If you do have one of the multi-user versions, this chapter covers the requirements and installation for **BBS-PC!**.

AMIGA USERS

If you own **BBS-PC!** for the Commodore Amiga, the operating system does not have a facility for record-locking. As such, **BBS-PC!** cannot be used in a multi-user environment. Do not confuse this with multi-tasking; **BBS-PC!** works perfectly in a multi-tasking environment.

There are two ways for **BBS-PC!** to work in a multi-user environment. Each is covered in the following sections.

BBS-PC! AND DOUBLEDOS

This requires a third-party software product named DoubleDOS. This program is available from SoftLogic, Inc. **BBS-PC!** v4.20 has been tested successfully with DoubleDOS v4.0.

Micro-Systems Software, Inc. makes no claims as to the suitability or fitness of DoubleDOS for an application. Contact Micro-Systems Software, Inc., for information on obtaining the

DoubleDOS version of **BBS-PC!**.

This version of **BBS-PC!** is named **DDBBS.EXE** and allows up to two users on the system at the same time.

If you are using DoubleDOS and will only allow one user on the system, this version is not required and the regular version of **BBS-PC!** may be run normally.

The rest of this section explains the procedure for installing two versions of **DDBBS.EXE** to allow two users on the system.

First run **BBSINIT** and generate a second node file. Do not generate a new parameter or main BBS files. When prompted for the node number, respond with 2.

To log into node 2, from DOS, enter **DDBBS -N:2** and press Return. Select the node defaults and modem defaults from the Maintenance module and make any necessary changes. If you are using two identical modems, both modem settings may be the same.

Each version of **BBS-PC!** loaded into memory has the ability to monitor two COM ports and answer one. Depending on your needs, you can devote each node to one COM port and one modem, or have both nodes poll both COM ports simultaneously. It is recommended you turn your Wake-up on Call option OFF in the second node so the local screen is not cluttered if two users are on at the same time.

After making the appropriate changes to your node file, edit your **AUTOEXEC.BAT** file and execute **SHARE** as the first command. The **SHARE.EXE** file must be executed before loading DoubleDOS and provides the record-locking capabilities required by **DDBBS.EXE**.

In your **DDCONFIG.SYS** file (DoubleDOS configuration file), have one partition execute **DDBBS** and the other partition execute **DDBBS -N:2**. That is all that is required.

With the version tested at Micro-Systems Software, Function 43 (*Exit to DOS*) had a tendency to prevent the remote user from seeing anything entered at the operating system prompt. This function works correctly without DoubleDOS.

When running any of the **BBS-PC!** file utilities, always make sure all versions of **BBS-PC!** are closed first.

BBS-PC! ON A LOCAL AREA NETWORK

BBS-PC! shines in a local area network environment. With 99 nodes available, **BBS-PC!** is perfect for your internal electronic mail needs. This version of **BBS-PC!** is named **NBBS**. Contact Micro-Systems Software, Inc., for information on obtaining the Local Area Network version of **BBS-PC!**.

To use **BBS-PC!** in a local area network environment, the LAN must be NETBIOS compatible. This section assumes you have already installed the LAN properly. The remainder of the section contains specific information for installing **BBS-PC!**.

Prior to loading the LAN software on the server, **SHARE.EXE** must be executed. This provides the record-locking necessary for **BBS-PC!**. This next command must be executed from the server's **AUTOEXEC.BAT** file:

SUBST F: C:

F: is the drive letter which the server and all nodes in the LAN recognize as the server drive. The example above may substitute any legal drive letter for the default server drive (*C:*). The drive letter does not matter, as long as the server and all nodes refer to the server drive with the same drive letter.

Now run **BBSINIT** and make sure each drive path for **BBS-PC!**'s datafiles refers to the new drive letter (*F:*) instead of the server's default drive letter.

Once that is done, you may begin installing individual nodes. Node numbers can be 1-99 and do not have to be installed in consecutive order. To load **NBBS** in a specific node, type:

NBBS -N:x

where x is the node number. Each person should be assigned their own node number to prevent two users trying to access the same node simultaneously. If you load *NBBS* from the server without a node number, it defaults to node number one automatically.

Each version of **NBBS** loaded into memory can monitor two COM ports and answer one. In addition to an internal electronic mail system, you may have **NBBS** answer outside calls. If each node in the LAN handles just one phone line, the only practical limit to the number of users on at the same time depends on the capabilities of the server.

When running any of the **BBS-PC!** file utilities, always make sure all versions of **BBS-PC!** are closed first.

CHAPTER 10

BBS-PC! UTILITIES

This chapter discusses the file utilities available with **BBS-PC!**. Each utility performs a specialized function with **BBS-PC!**'s datafiles to help maintain the system.

Every **BBS-PC!** utility **MUST** be run from the same directory as the *BBS.P* file, or you'll see the error *%% Can't open ISAM files %%*. The *BBS.P* file contains the drive/path names to locate **BBS-PC!**'s datafiles.

BBSCONV

The utility converts **BBS-PC!** 3.04 datafiles to 4.20. Please make backups of your datafiles prior to performing the conversion.

The conversion is performed as follows:

- 1> Copy all the 3.04 datafiles into the same drive and directory.
- 2> Copy all the files from the **BBS-PC!** v4.20 program diskette to the same drive and directory as the 3.04 datafiles.
- 3> Run **BBSINIT** and generate a parameter file. Respond to the prompts for where the datafiles should be located. Refer to the section titled *BBSINIT* if you have any difficulties. When asked to generate main BBS files, answer *N*.
- 4> Run **BBSCONV**. The following appears:

BBSCONV - BBS-PC 3.04 -> 4.20 conversion
Copyright (c) 1985,86,87 Micro-Systems Software Inc.

Are you sure (Y/N)?

Answer *Y* and press Return. As each datafile is converted, it is

copied to the drive/path specified in **BBSINIT**.

When the DOS prompt appears, you are ready to start using your system. There were a number of **BBS-PC!** function changes between v3.04 and v4.20. You may need to make some changes to your menus prior to allowing users on your system. Refer to your v3.04 manual and to Chapters 7 and 8 in this manual for function number and menu changes.

BBSFILE

This utility inserts local files directly into the file catalog.

BBSFILE works much like Function 18 (*Upload a File From Local*), except many files can be added instead of one at a time.

BBSFILE supports the following switches:

- s:x Section number. Defaults to section number 0 if this switch is not used.
- d:x Directory number. Defaults to Directory/0 if this switch is not used.
- b Designates the file type as binary.
- t Designates the file type as text. If this switch is not used, the file type defaults to binary.
- n No file description. If this switch is not used, as each filename appears, it pauses for a file description.
- d: Drive/path. This is an optional drive path. If a drive/path is not entered, the current drive/path is used.

A sample IBM drive/path is: *C:\BBS\UPDN*. Don't forget the trailing backslash.

A sample Amiga drive/path is: *DH0:BBS/UPDN/*. Don't forget the trailing forward slash.

wildmask Select only those files matching a pattern.

A sample IBM wildmask is: **.EXT* to select only those files which end in the filename pattern *.EXT*.

A sample Amiga wildmask is: *#?.EXT* to select only those files which end in the filename pattern *.EXT*.

Consult your DOS User's manual for more information about wildmasks.

When you run **BBSFILE** without any parameters you see the following:

BBSFILE - BBS-PC Local file utility - 4.20
Copyright (c) 1985,86,87 Micro-Systems Software Inc.

 [-----]
TEST.ARC

Each filename appears as it's found in the directory. If the filename is already in the catalog, it is omitted.

File descriptions may be 40 characters long. To skip a description when the *-n* switch isn't used, press the space bar and then Return.

After all the files are entered, **BBSFILE** displays the total number of files in the file catalog.

If the *-t* or *-b* switch isn't used and the filename ends in one of these extensions: *.ASC*, *.TXT*, *.DOC*, *.DIR*, *.PAS*, *.ASM*, *.MAC*, *.BAT*, *.PRN*, *.LST*, *.HEX*, *.ME*, *.C* or *.H*, it is automatically designated as text.

To exit **BBSFILE** before all the files are displayed, press Return at a file description or Ctrl-C. Be careful of when you use the Ctrl-C, you may have to run **BBSFIX** before running **BBS-PC!**.

This next example checks all files in the current directory and places the file catalog entry in section number A in Directory/1. All files are designated as binary.

BBSFILE -s:A -d:1 -b

This example checks all files in the current directory and places each file catalog entry in section number 1, Directory/20. File descriptions are not prompted.

BBSFILE -n -s:1 -d:20

This is a sample IBM command line which loads all files from the specified sub-directory which end in the filename .ARC. All files which match this pattern are placed in section number 3, Directory/100 of the file catalog. A file description is not prompted.

BBSFILE -n C:\BBS\UPDN2*.ARC -s:3 -d:100

This is a sample Amiga command line which loads all files from the specified sub-directory which end in the filename .ARC. All files which match this pattern are placed in section number 3, Directory/100 of the file catalog. A file description is not prompted.

BBSFILE -n DH0:BBS/UPDN2/#?.ARC -s:3 -d:100

Switches may be entered in any order and any combination, with the exception of *-t* and *-b*. Only one of these switches may be used with the others.

BBSFIX

This utility can repair almost any damage to your datafiles. The most common need for this program arises from exiting **BBS-PC!** improperly or a loss of power while the datafiles are open.

When you run this program you see the following:

BBSFIX - BBS-PC file rebuild/recovery - 4.20
Copyright (c) 1985,86,87 Micro-Systems Software Inc.

General rebuild (Y/N)?
Do you want to force rebuild (Y/N)?
Message links (Y/N)?

BBSFIX checks the following datafiles:

MSGHEAD.DAT
MSGKEY.DAT
MSGTEXT.DAT
USERDESC.DAT
USERKEY.DAT
UDHEAD.DAT
UDKEY1.DAT
UDKEY2.DAT
UDKEY3.DAT
CALLER.DAT
CALLKEY.DAT

BBSFIX rebuilds all file which were left open. As each file is examined, its name appears on the screen along with a short message. If no rebuild is necessary, it displays a message and checks the next file.

When a rebuild is necessary one of the following messages may appear:

Rebuilding data file.

Rebuilding index file with batch size = xxxx

If you see this message:

Duplicate key rejected for record #xx

don't worry. **BBS-PC!** found two identical records in the system. This is not a fatal error message and it eventually goes away after the duplicate record is overwritten.

When you force a general rebuild, every file is examined and rebuilt, regardless of whether or not it was left open. Forcing a rebuild is often necessary if a disk error appears.

If an error in the message base occurs, a message links should be performed. This includes disk errors when reading or leaving messages, or if part of one message appears in another message.

This is usually required after a power loss when a user has left a message and **BBS-PC!** could not store the data properly.

BBSFIX supports switches to allow the program to be run unattended. For example:

BBSFIX -g:y -f:y -m:y

Does a general rebuild (-g:y), forces it (-f:y) and performs a message links (-m:y). All switches accept Y or N responses. A sample **BBSFIX** to recover from datafiles left open (for unattended operation) would appear as:

BBSFIX -g:y -f:n

In the event **BBSFIX** does not fix a corrupt datafile, try to locate where the problem is and delete the message or record where the error occurs. After doing so, run **BBSFIX** again with a forced general rebuild and message links.

BBSFIX can be run to verify that new datafiles are located where you specified from **BBSINIT** when you generated the parameter (*BBS.P*) file. When a file is not found, it is reported. If the drive/path for a file is not correct **BBSINIT** may need to be run to generate a new parameter file.

BBSINFO

This utility displays a listing of your system's activity. **BBSINFO** examines the datafiles for its report. The greater the number of entries in your datafiles, the greater the range for each report's coverage.

When you run this program, the following appears:

BBSINFO - BBS-PC system information - 4.20
Copyright (c) 1985,86,87 Micro-Systems Software Inc.

Hours/day of operation?
Previous period filename?
New period filename?

At the first prompt, enter the number of hours each day your system operates. Press Return if it operates 24 hours a day.

The second and third lines prompt for filenames. Period filenames compare the number of times your files have been accessed by users since a previous report.

Period filenames can be any legal filename. Enter a filename to help identify when it was created, such as: *OCT-1-87*.

A previous period filename compares download statistics against current system activity. These results can be stored in a new period filename. Think of the previous period filename used as a way to display system activity subtotals.

provide a break down of activity.

Communications Statistics:

Total wizard SYSOP sessions	5
Total user calls at local	6
Total user calls at 19200 bps	0
Total user calls at 9600 bps	2
Total user calls at 4800 bps	0
Total user calls at 2400 bps	115
Total user calls at 1200 bps	173
Total user calls at 600 bps	0
Total user calls at 300 bps	5
Total user calls at 8,N,1	225
Total user calls at 7,E,1	70
Total normal disconnects	253
Total carrier lost disconnects	41
Total sleep disconnects	0
Total exceeded time disconnects	7
Total files downloaded	152
Total files uploaded	27
Total messages entered	101
Total calls in log	301
Total system utilization time (HHH:MM)	51:22
Total system elapsed time (HHH:MM)	120:00
Percentage of utilization	42%

The next report shows the percentage of use for each section, both messages and files. Sections which consistently have little or no use can be removed or re-vamped.

BBS-PC! USER'S MANUAL

Average Percentage of Section Usage - 428 Msgs, 2067 Files

[illegible]

Sec	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Most often downloaded files for this period:

BBSXFER.DOC	224	ARC016	105	ADDEN.127	92
FS2.DEMO.ARC	89	CHOP3.MSB	87	JETDEMO.ARC	86
CASTLE.MB	86	MSS12B.ARC	86	AMCOPY	84
ARC016.HLP	78	MAKEBOTH.ARC	77	AXEL F.SCORE	76
5.25ADSK.TXT	76	STARTREK.BAS	73	ARC.DOC	68
ADD DF2:	66	STAR TREK	65	WORLD.MB	65
TOLLFREE.ARC	64	REFLECTOR2.ARC	62	FASTBOOT.TXT	62
FONTS.ARC	62	PRINTERS.ARC	61	TOPBBS12-22	58
VOTING.TXT	58	CHIPTTEST	58	UNDELETE	57
RAMFAST.ARC	56	MSS.ARC	55	GURUMEDS	54
CBMREY.TXT	53	FIXOBJ	53	CYCLE.MSB	53

Files are displayed in order of access. If it has not been downloaded, it does not appear in the listing. This next list identifies which users access the system most often. This generally coincides with your section access.

Breakdown of users by terminal:

0: ASCII Terminal	22
1: IBM-PC/XT/AT	162
2: Tandy 2000	18
3: TRS-80 III/4	7
4: Timex 2068	0
5: Apple II	4
6: C64/128	17
7: Tandy 1000/1200	30
8: Commodore Amiga	861

System Control Statistics:

Total number of sysops	5
Total number of guests	0
Total users locked out	4
Total number of users in file	1121
Total number of private messages	3
Total roll-locked messages	0
Total number of messages in file	428

File Section Statistics:

Total files downloaded for period	26594
Total different files downloaded	1980
Total bytes downloaded for period	51370440
Total number of files	2068
Total bytes occupied by files	54045095

Miscellaneous information about the system appears. If you accidentally create a section sysop, it is easily verified with this listing. Users with a privilege level of 0 are shown along with the number of private and locked messages.

The file section information reports all files in the system unless a period file is specified.

All this information is stored in a file named STATS.TXT. To generate IBM graphics in the STATS.TXT file, type *BBSINFO* -g from the command line.

BBSINIT

This utility does a number of things. It creates the datafiles which **BBS-PC!** uses, it defines the drive/paths where they can be located.

Refer to Chapter 2 to use **BBSINIT** to initialize your datafiles. This section is more to make you acquainted with how **BBSINIT** can be used to help you maintain your system.

When you run **BBSINIT** you see:

BBSINIT - BBS-PC! Initialization - 4.20

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Generate parameter file?

Drive/path for message files:

Drive/path for user files:

Drive/path for U/D indexes:

Drive/path for log files:

Generate main BBS files?

Enter up to 16 paths for U/D files

Drive/path #1:

Drive/path #2:

Initialize BBS node file?

Which node (1-99)?

If you answer *Y* to *Generate parameter file?*, the next four lines prompt you for the drive/path of each type of datafile. Select

this option when you are re-organizing your system. **BBSINIT** does not copy the datafiles to the new location, you must copy them.

The second question prompts to create new datafiles. Answer **Y** if you are starting a new system. If there are existing datafiles, **BBSINIT** deletes them. **Always make backups of your datafiles!**

When you generate new BBS files, you are prompted to enter up to 16 upload/download paths for your datafiles. Enter as many as you like and press Return to abort.

The next prompt allows you to create a new node file. A node file should normally be initialized only once when you start, unless you are creating a secondary node file. If you answer **Y** you must enter the node number to create. Each node file is identified as *NODExx.DAT*, where *xx* is the node number. **BBS-PC!** allows up to 99 nodes.

The only time you really need to run **BBSINIT** in the manner above is to generate a new parameter file when you move **BBS-PC!**'s datafiles.

BBSINIT supports a number of switches to aid you in making changes to your datafiles. These are:

- m:x Renumbers your message base from *x*.
- c:x Sets the highest caller number in the system.
- s:x Changes the pseudo filename counter.
- u Updates the 16 upload/download paths.

The **-m:** switch renumbers your message base where *x* is the new low message number in the system. This can be used when you have a number of locked messages in the system and your message number range from (100-3487), giving the impression of a large message system when there may be only a few hundred messages.

When this switch is used, the highest message number in all the users records is set to 0. Since **BBS-PC!** only checks for new

messages from the user's highest message read, this allows users to be prompted for new messages regardless of the value used to renumber the message base. Here is an example where the lowest message in the system is renumbered from 4500:

BBSINIT -m:4500

The **-c:** switch lets you change the highest caller number in the system. Switches may be combined as follows:

BBSINIT -m:4500 -c:23000

The **-s:** switch changes the pseudo filename counter. This should only be done if you've recently created a new node file after using the old node file with sections that have pseudo filenames.

When a new node file is generated, the pseudo filename counter is reset to 0. Therefore, use *BBSINIT -s:xxxx* to change the filename counter to equal the highest pseudo filename in the system for that node.

Pseudo filenames for a node can be identified by the filename extension of *.U1*, *.U2* and so forth. **BBSINIT** prompts for the node number to change. If this isn't done, your users will see *File already in catalog* everytime they try and upload to a section with pseudo filenames.

The last switch **-u** is used to update your 16 upload/download paths. When **BBSINIT -U** is run, the current defined paths are shown. Enter the new paths and press Return when finished. You do not have to enter all 16 paths if you do not wish.

BBSMENU

This utility takes your menu text source to menus readable by **BBS-PC!**. The menu source text file is the only parameter. For example:

BBSMENU MENU.TXT

You may create one large text file with all your menu source, or separate your menus into smaller files and process each with **BBSMENU**. The menu source should follow the format discussed in Chapter 8.

When compiling, **BBSMENU** always aborts at the line where the error occurred. These error messages are quite helpful:

Filename required: **BBSMENU** was run without a source menu filename.

Missing comma: A comma was required to separate fields.

Can't create menu: For the Amiga this may mean your stack size is not at least 15000.

Can't write to menu: Not enough disk space, disk is write protected.

Too many menu entries: The menu exceeded 50 lines.

Missing hyphen: A privilege range is missing this character.

Line too long: The maximum line is 255. This may also appear if your menu exceeds 4000 bytes.

Parameter too long: The menu item parameter exceeded 12 characters.

Missing double-quote: A display description did not end with a double-quote.

Numeric digit expected: A backslash was encountered without the ASCII decimal value.

BBSTALLY

This utility processes the .BAL file and creates an ASCII text file which displays the results of your users choices.

The ballot filename must be entered on the command line. If the ballot name is VOTE.BAL the resulting text file is VOTE.TXT. You may specify both the input ballot file and output text filename on the command line. For example:

BBSTALLY filename.bal textfile.txt

CHKFILE

This utility compares the file catalog against the files on disk and vice versa. There are two ways to use this utility. One is to type **CHKFILE**:

CHKFILE - Check file online status - 4.20

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```
ALIEN.ARC      -> ALIEN.ARC
AMUGBBSLIST    -> FILE0011.U1
ARC23.ARC      -> ARC23.ARC
ASTEROID.BAS   -> ASTEROID.BAS
BBSFILE        -> BBSFILE    * Not Online *
BBSMENU        -> BBSMENU    * Not Online *
HELP.ARC       -> HELP.ARC
MSS-LOGO.ARC   -> FILE0023.U1
MSS.ARC        -> MSS.ARC
NGI2.ARC       -> NGI2.ARC
ZOO.EXT        -> ZOO.EXE
```

The file catalog entries appear to the left in alphabetical order. The disk filenames appear to the right. The drive/path always precedes the disk filenames to help you locate the specific file.

When a file catalog entry does not have a corresponding disk file, the message ** Not Online ** appears next to the disk filename.

CHKFILE can automatically delete a file catalog entry when the disk file is not found with the *-d* switch. For example:

CHKFILE -d

When it reaches these two files it displays:

```
BBSFILE      -> BBSFILE      * Not Online * - Killed
BBSMENU      -> BBSMENU     * Not Online * - Killed
```

When you run **CHKFILE** by itself or with the delete switch, it always compares the file catalog against the files on disk. If the *-d* switch is used, the file catalog entry is deleted when its disk filename cannot be found.

Often, if you have a large file catalog section -- especially if you are using pseudo filenames, you may need to know the disk filename of a catalog entry. Once the disk filename is identified, it makes it easier to copy the file to another drive/path or to test on another system. To search for a single catalog entry, use the *-s* switch as follows:

CHKFILE MSS-LOGO.ARC -s

Which displays:

```
MSS-LOGO.ARC -> FILE0023.U1
```

The disk filename is always preceded by the drive/path to help in locating the correct file.

There another way to run **CHKFILE**. Instead of comparing the file catalog against the files on disk, you may compare the disk files against the file catalog. If the disk file DOES NOT have a

corresponding file catalog entry, it appears on the screen. To do this, you enter a drive/path name, a wildmask, or a combination of both. For example:

IBM Users

CHKFILE B:
CHKFILE *.ARC
CHKFILE B:\BBS\UPDN*.ARC

Amiga Users

CHKFILE DF1:
CHKFILE #?.ARC
CHKFILE DF1:BBS/UPDN/#?.ARC

The first example searches all files on a particular drive. The second searches for those files which end in .ARC. The third examples searches a specific drive/path for files which end in .ARC. Use your operating system's wildmasks. Refer to your DOS User's Guide if you have any problems.

Any disk file not found in the file catalog is displayed. Often you may have files which have nothing to do with your upload/download section. To delete these files enter:

CHKFILE B: -d
CHKFILE DF1: -d

Something similar to this may appear:

TEST.ARC Del (Y/N)?

The default is *N*. Press *Y* to delete the file from the disk. The only time **CHKFILE** prompts to delete a file is when the file is on the disk and not in the catalog. The delete parameter does not prompt you prior to deleting a catalog entry if the file is not found on disk.

CHAPTER 11 THE LIFE OF A SYSOP

This chapter offers some guidelines to maintain your system on a daily, weekly and monthly basis.

As a new Sysop, you're likely to encounter many difficulties. First, getting your system to perform the way you want. Second, dealing with new users and so-called 'hackers', kids who have nothing better to do than try and make your life miserable.

Despite the problems, life as a Sysop is quite rewarding. You'll meet a wide variety of people and often make many new friends. Being a Sysop is often addictive. There is always the feeling of accomplishment when a user calls your system for the first time and tells you how great your system is.

RESPONSIBILITIES

As a Sysop, you have a number of responsibilities, to your users and to yourself.

Despite the flood of public awareness concerning software piracy, 'pirate' boards can be found almost everywhere. Please be aware that making commercial software available to your users is a criminal offense. Many local law enforcement agencies are now concentrating on shutting down these types of systems. Heavy fines are often the least of a pirate Sysop's problems.

With that out of the way, the most successful systems offer their users something of value. Either in the way of information, or public domain software. By encouraging a spirit of cooperation and making your system user-friendly, your system should attract loyal users.

All systems take time to get started. First, post your BBS name and hours of operation on other local systems. After awhile, your users will provide most of the promotion by word of mouth.

If your system becomes so busy that you cannot handle all the responsibilities on your own, create a Section Sysop. A Section Sysop can maintain one or several sections in a message base, validate guests and move newly uploaded files out of Directory/0.

BBS-PC! protects you even from Section Sysops. A Section Sysop has no special privileges in section numbers in which they do not have Sysop access. In addition, they cannot promote themselves or other users who have privilege levels higher than themselves. You do not have to worry about a Section Sysop suddenly taking over your system and removing your Sysop account.

Of course, you should take care as to whom is made a Section Sysop. While they cannot ruin your entire system, it does not prevent them from deleting all the messages or the files in their section. A good Section Sysop is someone who regularly uses your system and whom you know on a personal basis.

DAILY MAINTENANCE

On a daily basis you will need to read all new messages and reply to those users who have asked questions or need to be welcomed to the system. Monitor the message base and try to make sure the right types of messages are in the correct sections. If a message is addressed to the wrong person, forward it to the correct person.

Guests who have applied for membership should be validated. Every Sysop has their own rules for membership and a procedure for validation. Some Sysops contact each new Guest by phone to confirm the user's identity, phone number and address. Others simply check to make sure they filled out the membership application correctly.

After validating new members, browse Directory/0 and move the files out of Directory/0 into another directory number so your users may download the file.

You may also want to take the precaution of testing each file before it is approved. Please be careful, there are many programs which are called 'Trojan Horses'. These types of programs intentionally format hard drives or scramble files. It is always a good idea to take the precaution of backing up your hard drive or floppy disk prior to running one of these programs. There are programs available in the public domain to help identify Trojan Horses.

If you cannot test a file because it was written for another computer, try to find a user who is willing to test it for you. Anytime a user reports a file which they suspect is a commercial program, delete it immediately.

Always backup your datafiles on a daily basis!

WEEKLY MAINTENANCE

Every week or so you can delete old messages in the system or those which have been read by the addressee. These messages always appear with an (X) next to the person's name to whom the message is addressed.

Removing old messages decreases the time a user has to wait while **BBS-PC!** checks for new messages. On the downside, if messages are deleted, threads can be broken. When a thread is broken and users cannot remember to what they are replying, it is difficult to continue a conversation. Consider both before deleting messages.

If you use section bulletins, these should be changed weekly. After changing the bulletin, make sure you reset the bulletin flags so users may view them.

If you maintain a text file with a listing of your file catalog, this should be updated each week.

You may also run **BBSINFO** to create the **STATS.TXT** file. Many Sysops create a menu item so users may view how often the system is being used. If a user is having problems accessing your system, the percent of hourly usage often helps to find the best time to call.

MONTHLY MAINTENANCE

Every month a Sysop should take a look at the system to see what has improved or needs improvement. Users who have not called after a period of 30-120 days can be purged from the user files. This is a matter of personal preference. Some Sysops like to state they have so many hundreds of users while others are only interested in keeping users who call regularly.

At this time you can review your message and file sections. If certain sections are being used rarely, you may wish to delete them or create another in which users have shown interest.

Always try to maintain a good rapport with your users. Listen to their suggestions, try to be helpful and your system should provide both you and your users many years of happiness.

CHAPTER 12 COMMON PROBLEMS

This chapter lists some of the more common problems you may experience while installing or using **BBS-PC!**. At the end of this chapter is a list of disk errors with some possible solutions.

Can't find ISAM files

BBS-PC! or one of its utilities is being loaded from the wrong drive path or the **BBS.P** file is not present.

BBS-PC! returns to DOS prompt after blanking screen

BBS-PC!'s datafiles were not closed properly. Run **BBSFIX**, do a general rebuild but do not force the rebuild.

BBS-PC! answers call but nothing happens

Your modem may be returning the wrong result codes or your modem settings aren't set up for the correct ones. See Chapter 4.

Alternate menu sets don't work

Make sure the menu set parameter is passed and alternate menu sets exist for all menus.

Adding ALL as a member

Prevents someone reading and deleting messages addressed to **ALL**.

A user is booted off after they enter their name

Run **BBSFIX** and force a general rebuild.

BBS-PC! won't answer the phone

BBS-PC! never answers the phone. That's a job for your modem.

There are many possibilities for this problem: Your modem is not in auto-answer mode, the wrong COM port is polled, your modem setup string is incorrect.

Answers phone but nothing happens

Carrier detect is forced or connect result codes aren't correct.

BBS-PC! answers at just one baud rate

Check your connect result codes. An improper modem type is selected. Your modem may not return result codes properly. See Chapter 4.

Cannot hang up on caller or modem won't answer after one call

DTR is forced or wrong modem type or setup string.

Sometimes BBS-PC! won't answer phone

Slow down your setup string. Change the modem type to re-send the string each time DTR is lowered. Check to see if S2 = 255 is in your modem setup string or another command which is not supported by your modem.

Does the poll light from the Local Screen stop blinking when someone calls in? If not, then carrier is not being recognized by the modem.

Always check to see if another device is configured using the same COM port.

Users don't see the Press [RETURN] prompt

Enter an S9 = 20 in your modem setup string. This changes the CD response time - not all modems support this register.

DISK ERRORS

Error Description

10	Not enough memory for initialization
12	Could not open index file
13	Could not open data file
14	Index file appears corrupt at open
15	Data file appears corrupt at open
16	Could not create index file
17	Could not create datafile
24	Could not close index file
25	Could not close data file
30	End-Of-File encountered
31	Delete chain not pointing to deleted record
35	Seek error, disk possibly full
36	Read failure on record
37	Write error, disk possibly full
42	Duplicate record lock
102	Missing ISAM parameter file (BBS.P)
103	Could not read parameter file initializers
106	Could not read parameter file data descriptor
111	Could not read parameter file index descriptor
114	Active data record found deleted
500	Could not open raw file
502	Could not read from raw file
503	Could not write to raw file

POSSIBLE SOLUTIONS

Error Solution

10	Add more memory
12	Check CONFIG.SYS file (IBM)
13	Check CONFIG.SYS file (IBM)
14	Run BBSFIX -g:y -f:y -m:y
15	Run BBSFIX -g:y -f:y -m:y
16	Drive/path entered improperly in BBSINIT

17 Drive/path entered improperly in BBSINIT
24 Could not close index file
25 Could not close data file
30 Run BBSFIX -g:y -f:y -m:y.
31 Run BBSFIX -g:y -f:y -m:y
35 Free up disk space and run BBSFIX -g:y -f:y -m:y
36 Possible hardware failure
37 Free up disk space and run BBSFIX -g:y -f:y -m:y
42 Duplicate record lock
102 Missing ISAM parameter file (BBS.P)
103 BBS.P file corrupted - run BBSINIT
106 BBS.P file corrupted - run BBSINIT
111 BBS.P file corrupted - run BBSINIT
114 Run BBSFIX -g:y -f:y -m:y
500 Specified file could not be found
502 File is corrupted
503 Disk is probably full

BBS-PC!'s file format is available for a nominal fee. Please contact Micro-Systems Software for more information.

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